

Neurons to Neighborhoods: From Individual Services to Population-based Systems

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Policy

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Goals of this Presentation

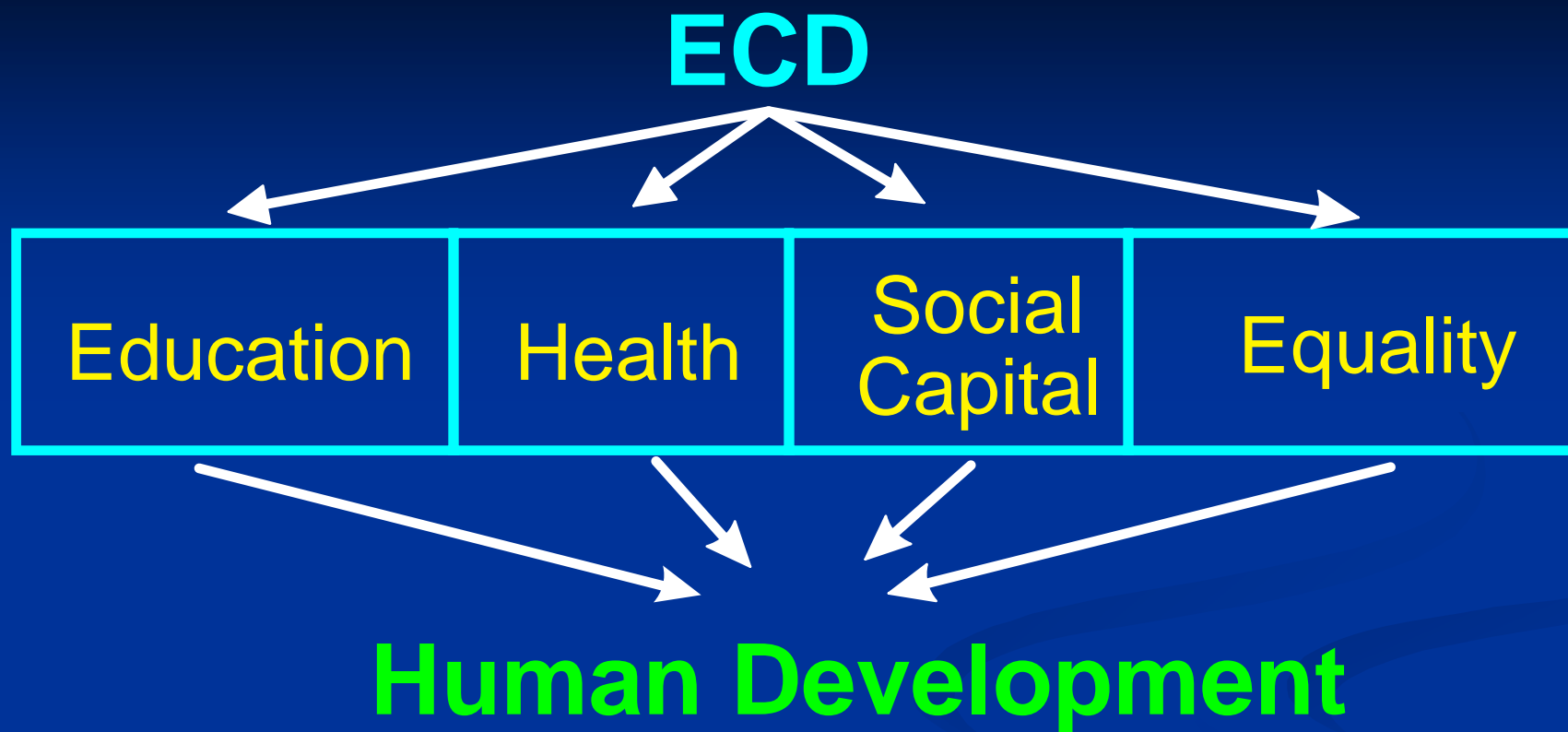
- Review the scientific, practical and policy rational for ECD paradigm shift
- Review some of the scientific advances in basic, clinical, and population research that have created the ECD paradigm shift
- Present the implication of these scientific advances on how we organize ECD services and programs and build community based system of care.



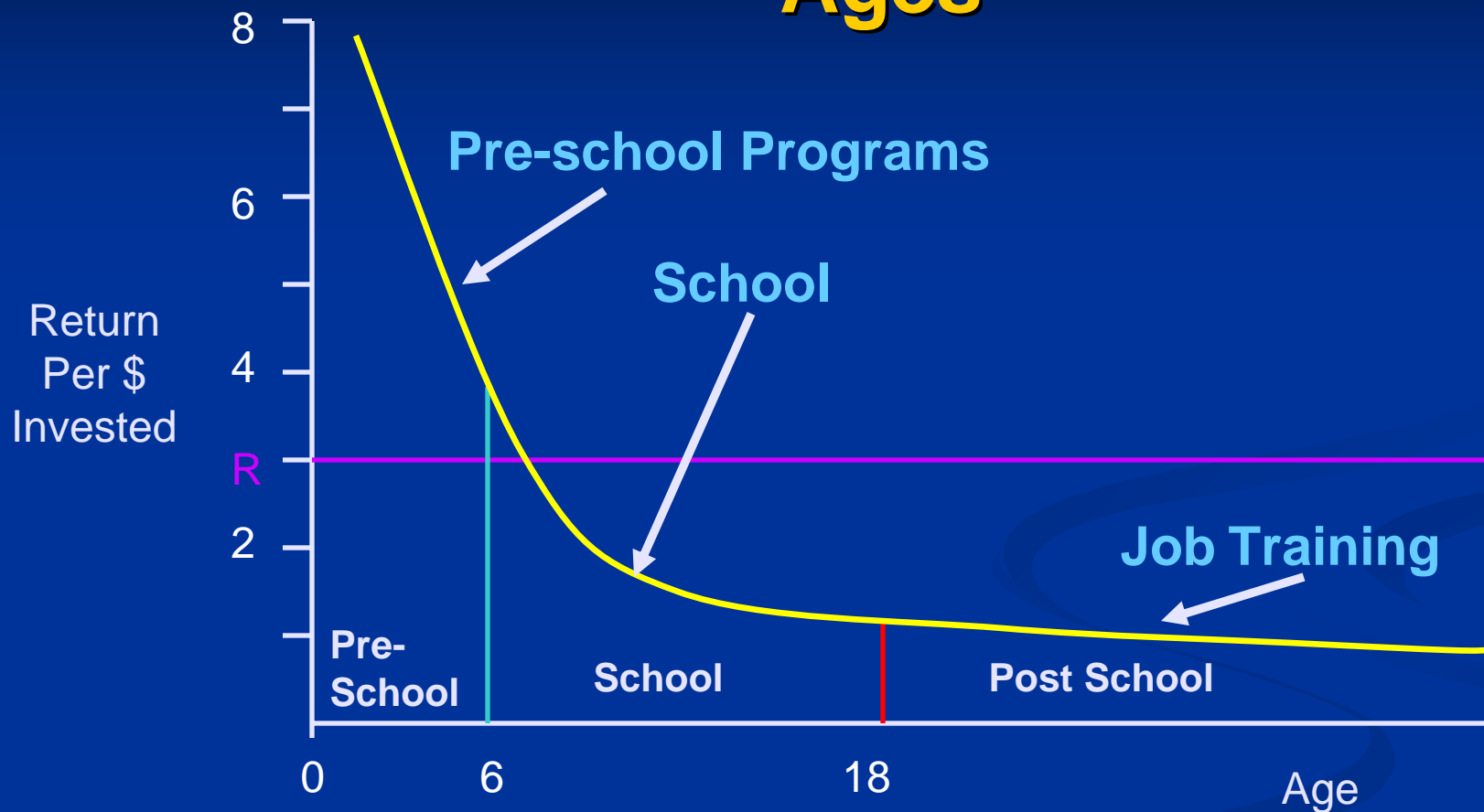
Optimizing Early Childhood Health and Development

- Our understanding about early childhood is undergoing a fundamental paradigm shift
 - Scientific advances, demographic changes, and advances in population health trajectories have placed greater value on young children
 - This evidence suggest that intensive investment in the optimal development of young children is warranted and necessary in order for a democratic society to fulfill its values & achieve its goals
 - Optimizing health development requires a different approach to organizing, and paying for health, education, child development services than previous approaches to early intervention





Rates of Return to Human Development Investment Across all Ages



Pedro Carneiro, James Heckman, Human Capital Policy, 2003



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>>>>The ECD Revolution<<<

Paradigm Changers

New Knowledge of :

➤ Brain Development

➤ Sensitivity of ECD

➤ Long reach of ECD

➤ Role of Risk,
Protective and
Promoting Factors

• ▲ Human Develop
IT/ Flatter/ Older
World

New ECD Paradigm

Δ Deep Structure

❖ Transactional

❖ Ecological

❖ Life-course
Development

Δ Operating System

❖ Optimizing

❖ Multi level,
sector, integrated

❖ Asset focused

Δ Culture of ECD

❖ Values, meaning

Systems Change

Δ Strategies

➤ Vision, goals

➤ Leadership

➤ Framing, Comm.

Δ Op Programs

➤ integrated

➤ longitudinal

Δ Parameters & Imperatives

➤ Outcomes/
expectations

➤ Performance
Monitoring



From Maturational to Transactional Development

■ Maturational Model

- Unfolding of preset genome
- Stages and milestones
- Minimize disabilities (chronic disease model)
- Screen for disabilities
- Deficit based/focus

■ Transactional Model

- Bi-directional gene-environment interactions
- Continuous process
- Optimize developmental potential
- Continuous surveillance of developmental competency
- Developmental Assets



ECD Revolution

■ Industrial Era

- Mass production, education, media, culture
- Tools to make & transport product
- Globalization #2
- Wealth through production and transportation
- Nuclear family
- Upgraded Religions
- Displaced population, cultures,
- **Human Develop- physical stamina and I.Q.**

■ IT Era

- New production model, flattening of world, politics, power, & wealth transform.
- Tools to make & transport knowledge
- Globalization #3
- Wealth through serving, thinking, knowledge, experience
- Family and ed changes
- New religious wars
- **Human Develop-I.Q, EQ, literacy, numeracy**



Early Childhood Systems Building: International Policy Context

Sub-optimal Child Development: What is at Stake in the IT Era

- School failure and additional costs due to expenditures for second chance programs
 - Special education
 - Mental health, juvenile justice
- Diminished potential to form strong social and family relationships
- Long-term costs in social dependency
- Sub-optimal productivity-economic, social,
- Sub-optimal health

ECD revolution: policy and service delivery paradigm shift

- Policies that focus on treating established problems are not sustainable
- Evidence for the effectiveness of interventions that focus on a single problem or single risk factor is poor or non-existent - ie does not make much difference
- All the evidence points to the need for a paradigm shift in policy and service delivery - away from narrow single issue programs towards 'broadbanding' services



National Early Childhood System Building Initiatives

- England – Sure Start ⁽¹⁹⁹⁸⁾/ Every Child Matters ⁽²⁰⁰⁵⁾
 - 1998 national initiative to end child poverty
 - Department of Health and Education along with Treasury
 - 3000 Sure Start Centers across England
- Australia-National Early Childhood Agenda⁽²⁰⁰³⁾
 - Best Start –Victoria, Platforms in Melbourne
 - Families First- New South Wales
- Canada
 - Better Beginnings Better Futures-Quebec
 - Early Years- Ontario, Toronto's First Duty,
- US
 - State Early Childhood Comprehensive Systems Initiative ⁽²⁰⁰³⁾
 - Many State programs—First 5 ⁽¹⁹⁹⁸⁾

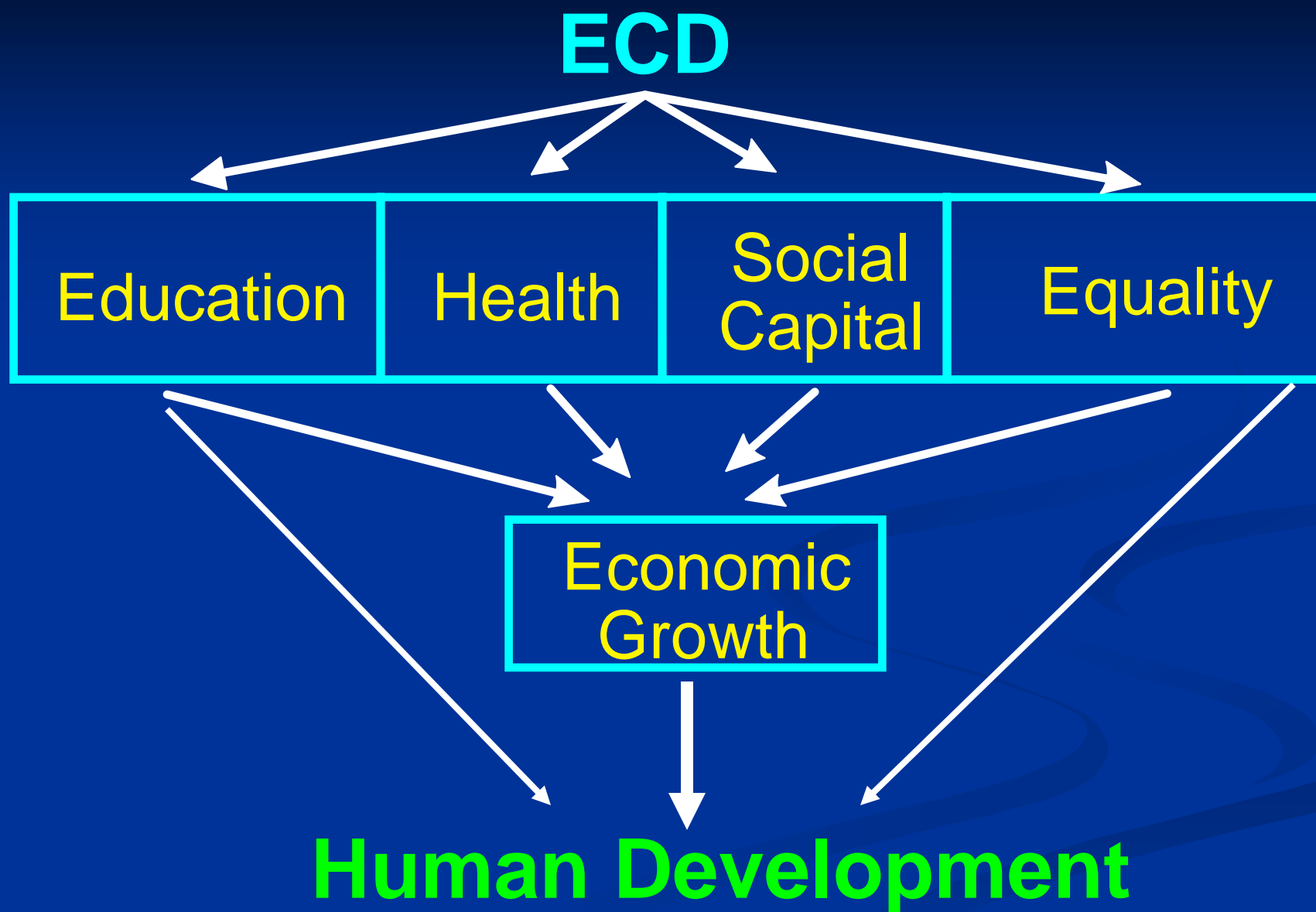


US ECD: Challenges

- No national agenda for ECD system development
- National Policy somewhat retrograde because of focus on skills and drills
- Lots of scattered efforts within federal agencies but not integrated at all
- Most at the State and Local level with lots of variation
- Ripening of the issues but competing with lots of other children's issues and everything else on the domestic policy agenda

US ECD: Opportunities

- Ripening of the ECD issues
 - Problem Stream is clear
 - Importance of ECD, Consequence of not acting
 - Policy Stream is some what diffuse
 - Low lying ECD fruit approach- UPK, Head Start, School Readiness
 - Comprehensive Systems approach needs to be better articulated, presented, justified
 - Politics Stream
 - ECD systems transformation will require better understanding of the crisis our nation is facing



Young Children in the US

- High rates of child poverty
 - 20% in families below FPL,
 - 41% below 200% of FPL,
- High rates of non parental care
 - 52% of 1 year olds, 82% of 4 year olds
- Much non-parental care is low quality
- Preschool participation is largely income dependent
- Head Start – 60% eligible, Early Head Start to about 4% of eligible

Pediatric Care :Young US Children

- Most of have regular place of pediatric care, although about 10% uninsured
- Less than 50% have a regular provider/person that they see
- Approximately 53% have ever received a developmental screening
- Overall ratings of quality of preventive and developmental health services are fair to moderate at best
- While estimates of children with developmental, behavioral, mental problems range from 20-30%, very few are identified prior to school entry

Young Children at Risk

2-4%
Severe
Disabilities

10-14%
Special Health
Care Needs

30-40%
Behavioral,
Mental Health
Learning
Problems

60-70%
Good Enough



Levels of Literacy: A Reflection of ECD

Level 1: indicates persons with very poor skills.

Level 2: people can deal with material that is simple

Level 3: is considered a suitable minimum for coping with the demands of everyday life

Level 4 describe people who demonstrate
and 5: command of higher-order processing skills



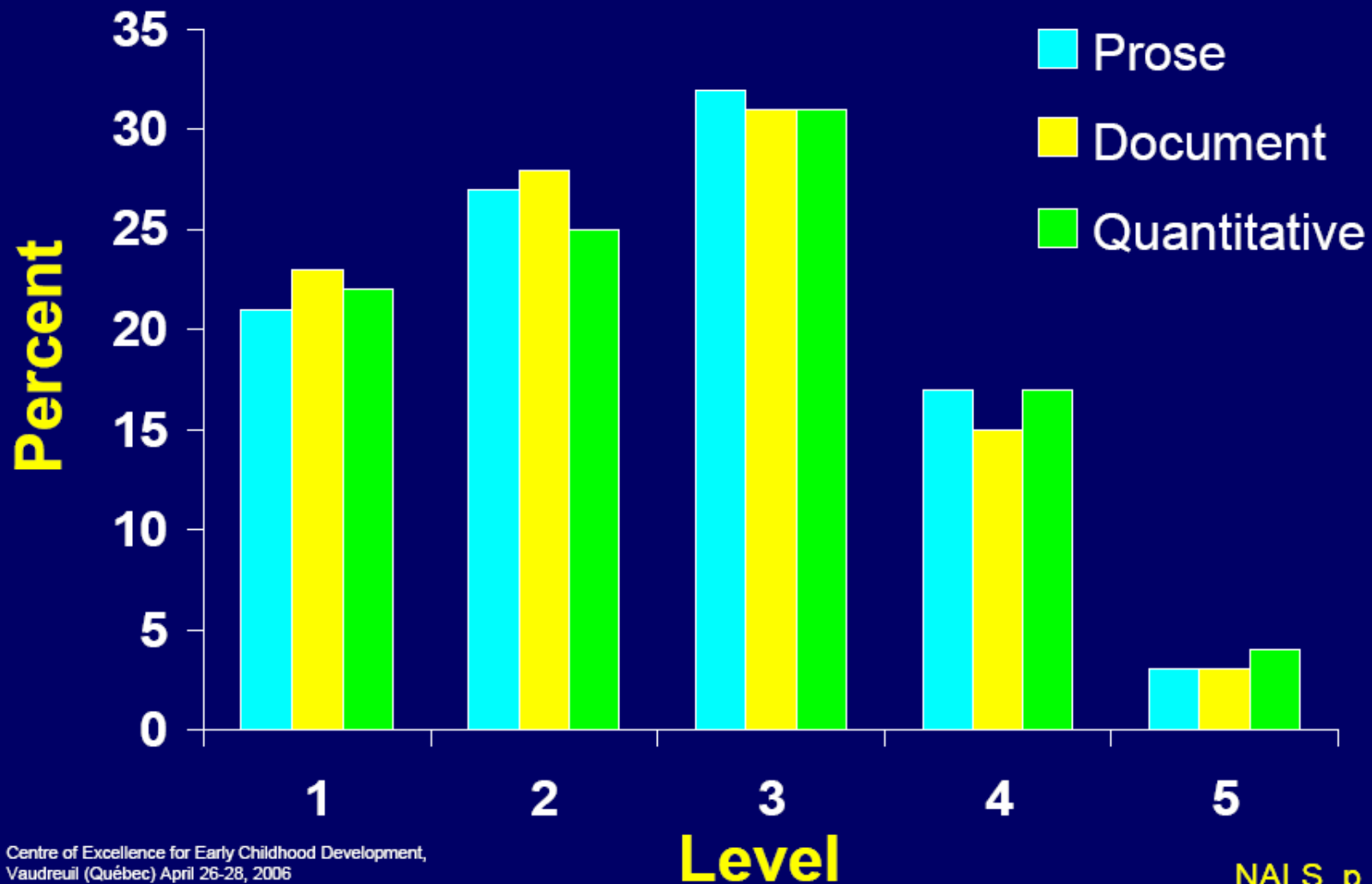
Document Literacy

1994 – 1998, Ages 16 to 55

	Level 1 and 2	Level 4 and 5
Sweden	23%	34%
Canada	42%	23%
Australia	43%	17%
United States	48%	18%
Chile	85%	3%



Literacy Levels for the Total Population – USA



Centre of Excellence for Early Childhood Development,
Vaudreuil (Québec) April 26-28, 2006

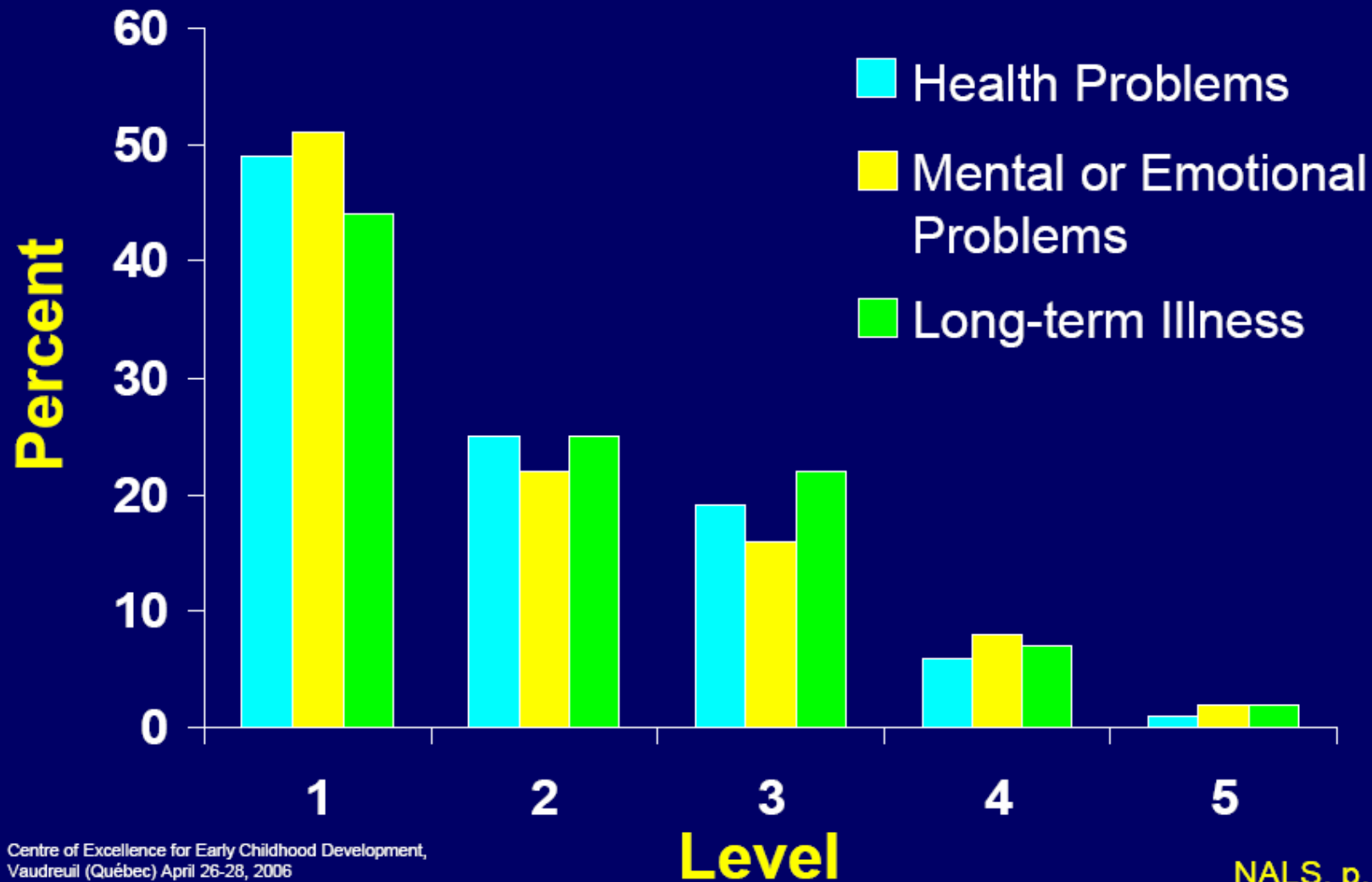


Families & Communities

NALS, p. 17, 2002



Literacy Levels by Physical, Mental or Other Health Conditions – USA (Quantitative)



Centre of Excellence for Early Childhood Development,
Vaudreuil (Québec) April 26-28, 2006



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NALS, p. 44, 2002



Multiple Areas of Research that Support Early Childhood Systems Development

Neuroscience Research

- Brain is not mature at birth
- Brain is changed by experiences
- Critical periods imply timing is important
- Relationships program social emotional function
- Adversity impacts brain development



Brains are Built Over Time

- The early years of life matter because the ongoing interaction between early experience and gene expression affects the architecture of the maturing brain.
- As it emerges, the quality of that architecture establishes either a sturdy or a fragile foundation for all the learning and behavior that follow.



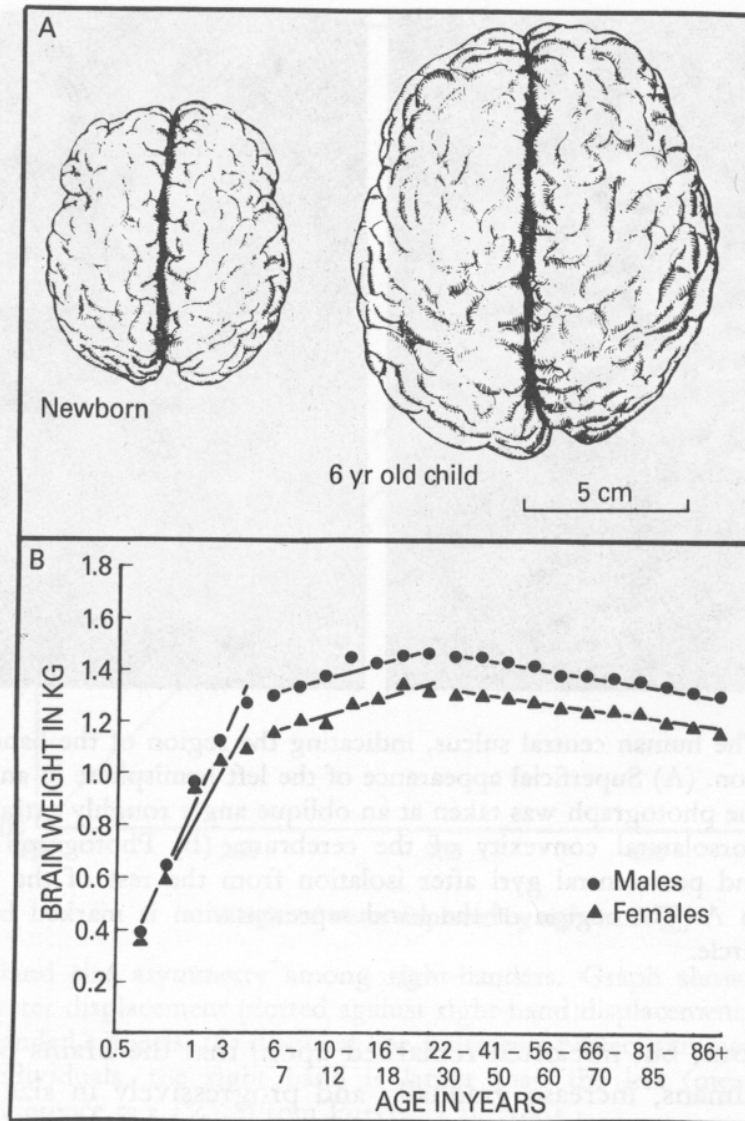


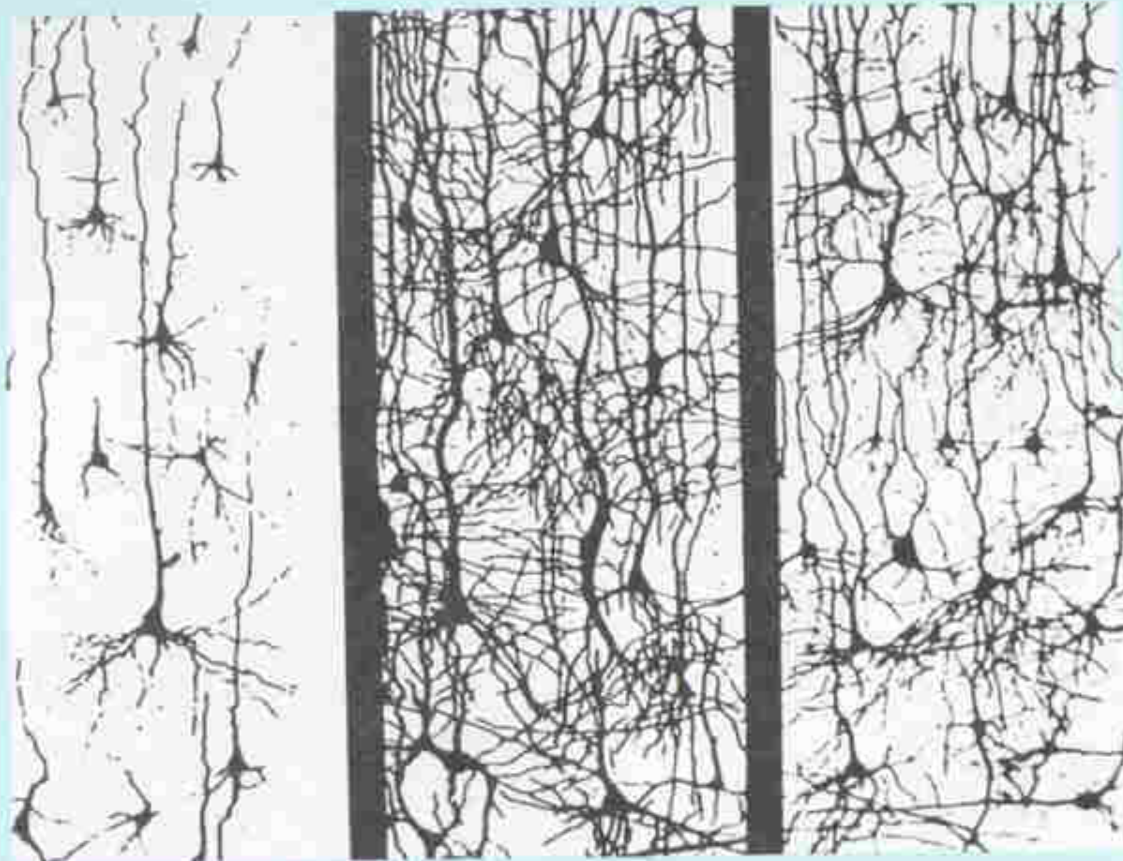
Figure 8.6. Postnatal growth of the human brain. (A) Dorsal view of a normal brain at birth (left) and at age 6 years (right). (B) The duration of human brain growth (according to brain weight). The growth of the brain (here based on 2603 neurologically normal subjects) continues for a decade or more. (From Purves, 1994; (A) after Conel, 1939-67; (B) after Dekaban and Sadowsky, 1978.)



At Birth

6 Years Old

14 Years Old



SYNAPTIC DENSITY: Synapses are created with astonishing speed in the first three years of life. For the rest of the first decade, children's brains have twice as many synapses as adults' brains.

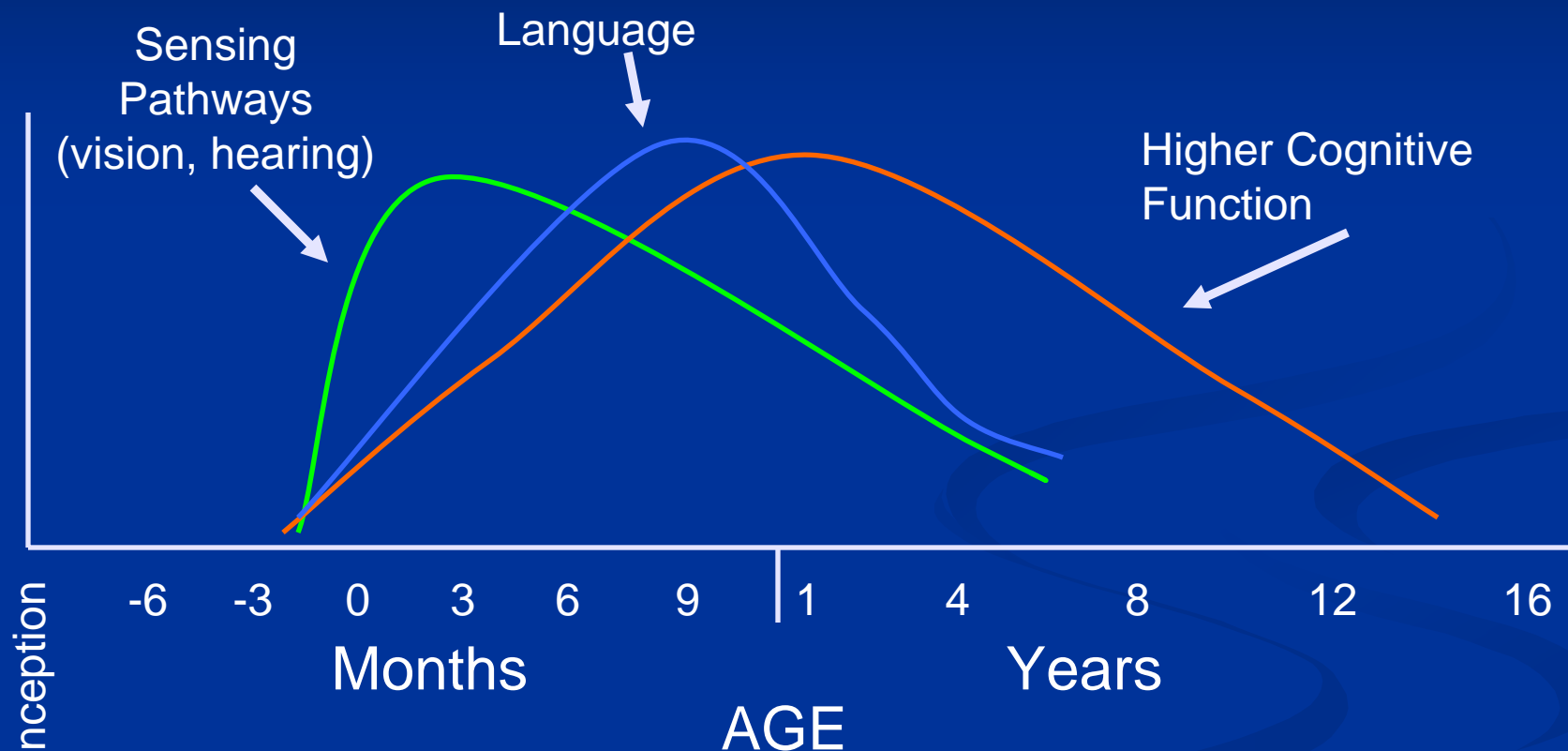
Drawings supplied by H.T. Chugani.



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Human Brain Development - Synapse Formation



C. Nelson, in *From Neurons to Neighborhoods*, 2000.



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**Brain is Changed
By Experiences**

Brain architecture

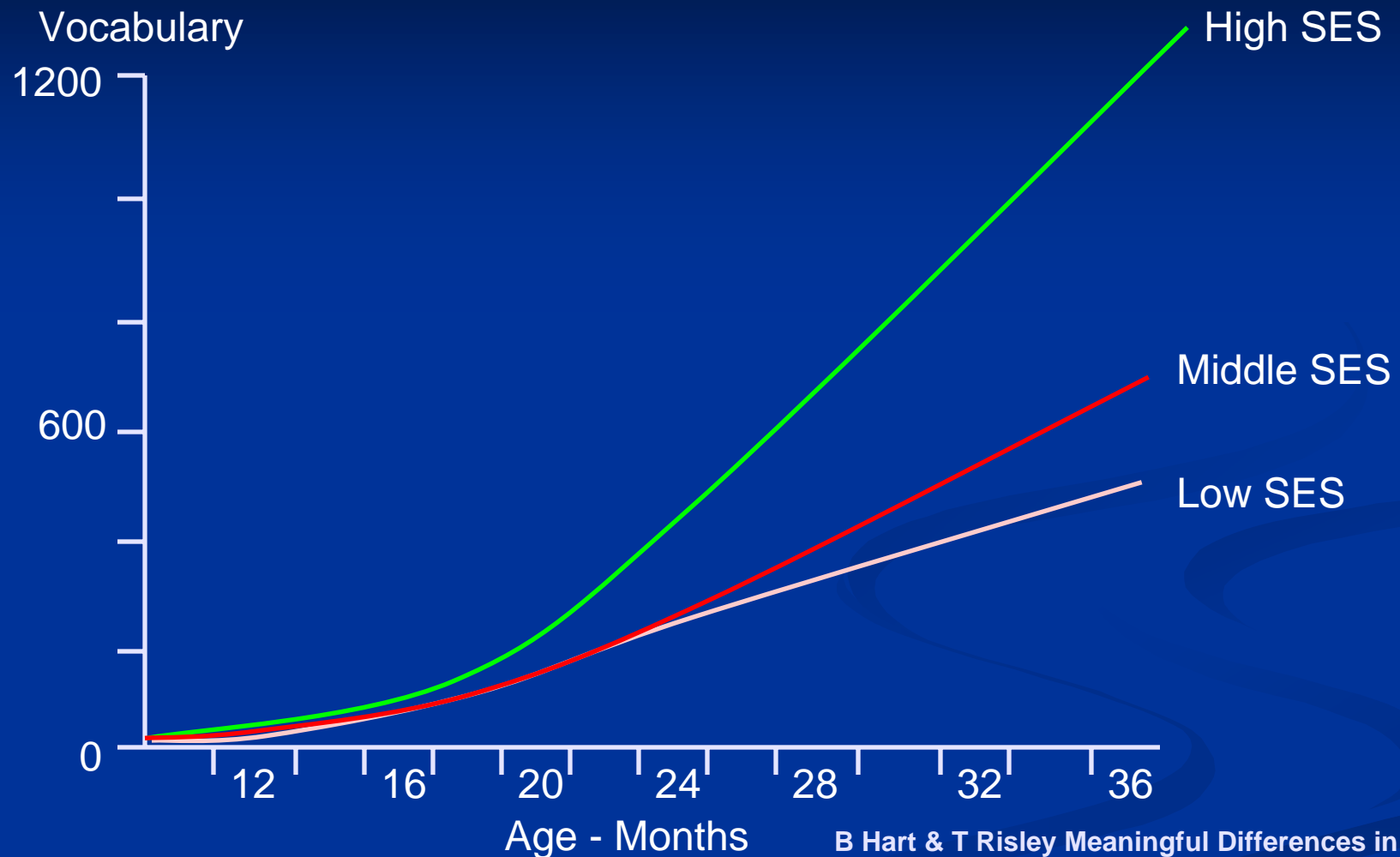
- The brain is sculpted by early experiences - this determines the development of neural circuits
- Plasticity of the brain decreases over time and brain circuits stabilizes, so it is much harder to alter later
- It is biologically and economically more efficient to get things right the first time than to try to fix them later



Brain Plasticity and the Ability to Change Behavior Decrease Over Time

- **Brain circuits stabilize with age, making them increasingly more difficult to alter.**
- **The window of opportunity for adaptive development remains open for many years, but the costs of remediation grow over time.**
- **It is more efficient, both biologically and economically, to get things right the first time than to try to fix them later.**

Vocabulary Growth - First 3 Years



B Hart & T Risley Meaningful Differences in Everyday Experiences of Young American Children 1995



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Relationships

Program Social

Emotional

Function

Relationships

- Of all the factors that operate in a young child's environment, the single most important determinant is the quality of the child's relationships with parents and caregivers
- It is the relationship that the young child has with their caregiver(s) that literally sculpts the brain and determines the development of circuits



Early experience is all about relationships

- Nurturing and responsive relationships build healthy brain architecture that provides a strong foundation for learning, behaviour and health
- Human infants are the most dependent of species - need nurturing and protective relationship for survival as well as optimal development
- When protective relationships are not provided, levels of stress hormones increase - this impairs cell growth, interferes with formation of healthy neural circuits, and disrupts brain architecture



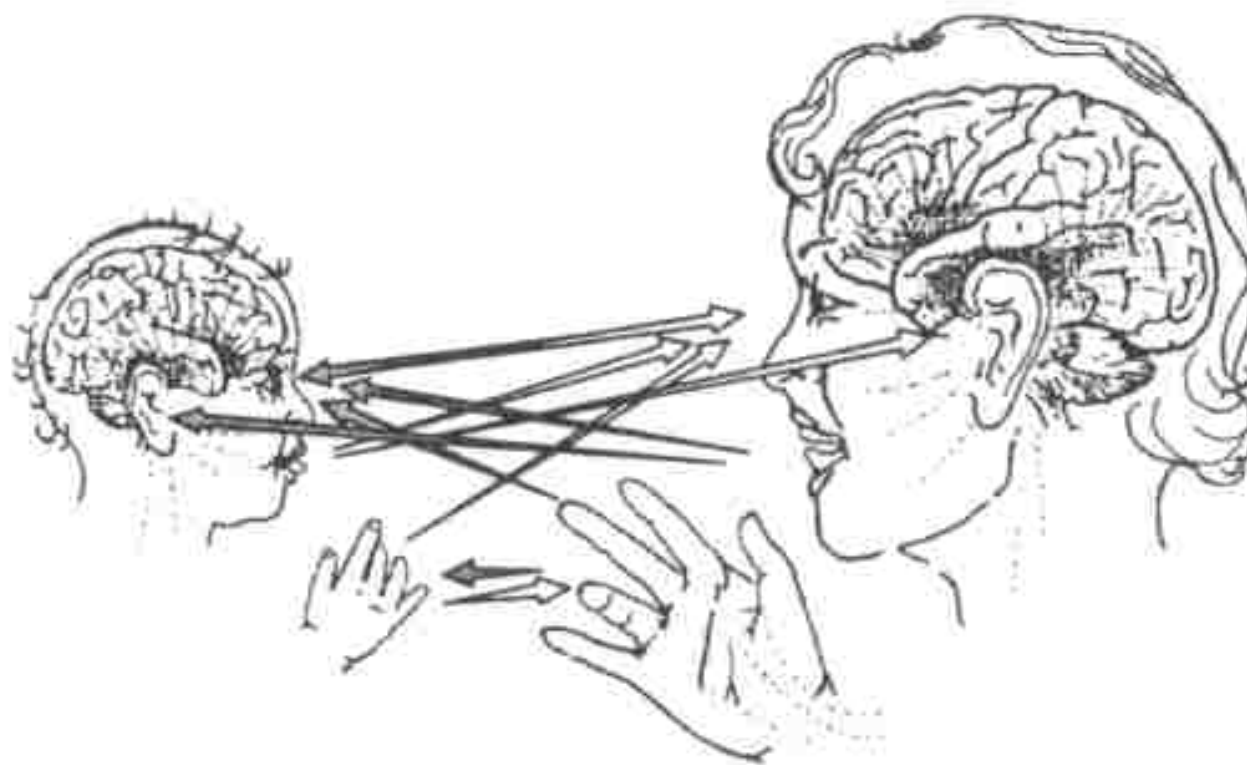


Figure 2. Channels of face-to-face communication in protoconversation. Protoconversation is mediated by eye-to-eye orientations, vocalizations, hand gestures, and movements of the arms and head, all acting in coordination to express interpersonal awareness and emotions. Adapted from Trevarthen (1993).

The importance of social and emotional development

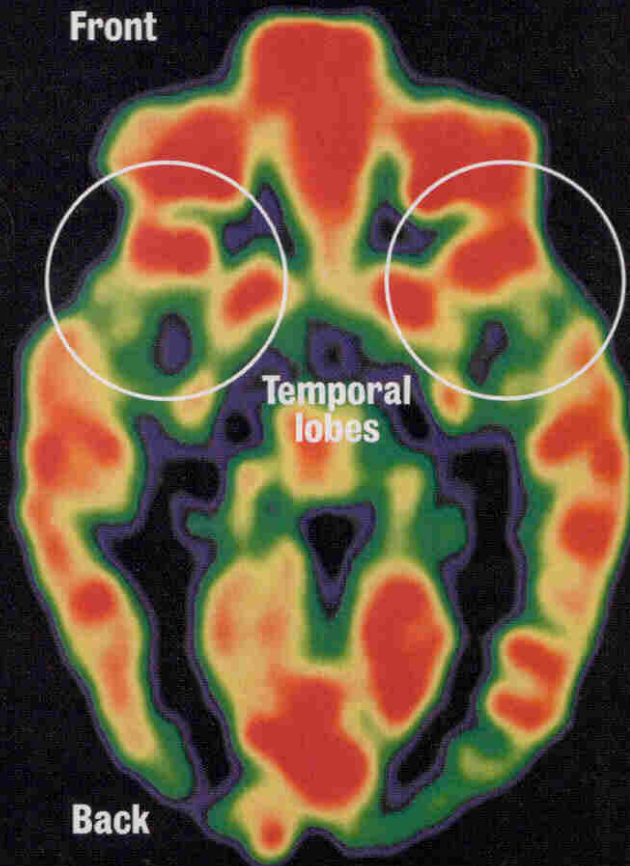
- Social, emotional and cognitive development are highly interrelated - they are not separate constructs
- Emotional wellbeing and social competence provide a strong foundation for emerging cognitive abilities
- Social skills, emotional health and cognitive abilities are all important prerequisites for success in school and later in the workplace



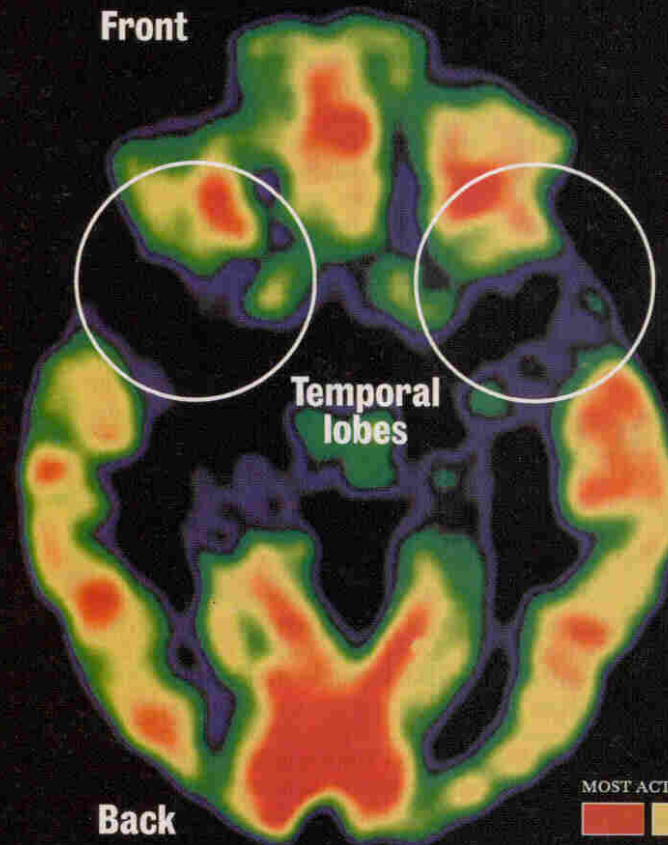
Adversity Impacts Brain Development

Healthy Brain

This PET scan of the brain of a normal child shows regions of high (red) and low (blue and black) activity. At birth, only primitive structures such as the brain stem (center) are fully functional; in regions like the temporal lobes (top), early childhood experiences wire the circuits.

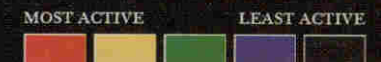


Front



An Abused Brain

This PET scan of the brain of a Romanian orphan, who was institutionalized shortly after birth, shows the effect of extreme deprivation in infancy. The temporal lobes (top), which regulate emotions and receive input from the senses, are nearly quiescent. Such children suffer emotional and cognitive problems.



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Maternal Depression

- Common
- Higher rates in inner city, poor, single mothers
- Multiple impacts
- Treatable



Depressed Mothers: Response Patterns to Infants

- Express less positive and more negative affects
- Less attentive and more disengaged
- When engaged are more intrusive and controlling
- Fail to respond adaptively to infant emotional signals

Infants of Depressed Mothers

- Shorter attention spans
- Less motivation to master new tasks
- Elevated heart rates
- Elevated cortisol
- Reduce EEG activity right frontal cortex



Science of Brain Development

- Early brain development is one of the most important pathways to lifelong learning, behavioral competence, positive social relationships and health



Influences on the child's environment

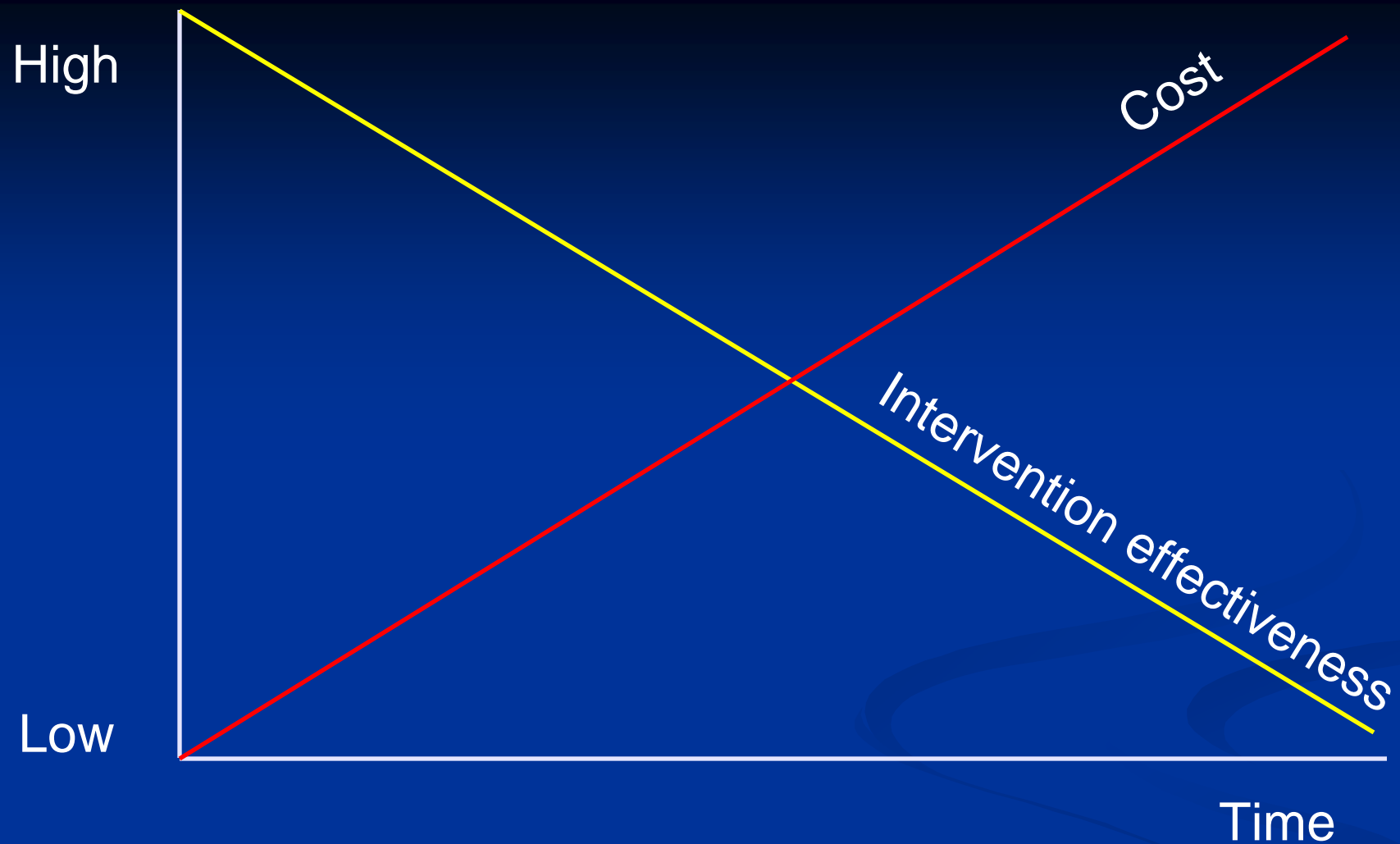
- *Parents and family*: risk factors include low parental education, parental mental illness, social isolation, poverty and its associations - poor housing and poor access to services
- *Community*: risk factors include quality of and access to services, child care and early education, schooling, support for parents, extent and quality of intervention services



Making a difference

- Identify and address risk factors, knowing that they are not static and may change over time.
- Goal is to diminish or remove risk factors and strengthen protective factors - changing the balance of risk and resilience and thus improving chances of good outcome
- The earlier the better - more leverage in younger years





Intervention effects and costs of social-emotional mental health problems over time (Bricker)



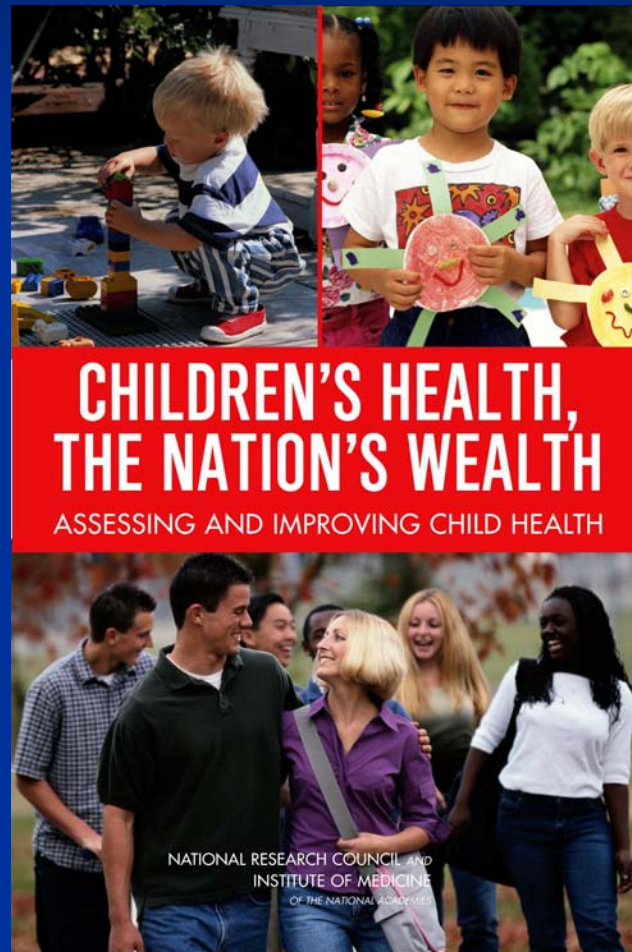
Research on Health Development

Research on Life Course Health Development

- Health Development occurs across the life course
- Health development can be represented by health trajectories
- Critical/ Sensitive periods are times when toxic social environments and adverse experience are likely to “get under the skin” and become embedded in to the biology and brain of the developing child



2004 National Research Council and Institute of Medicine Report



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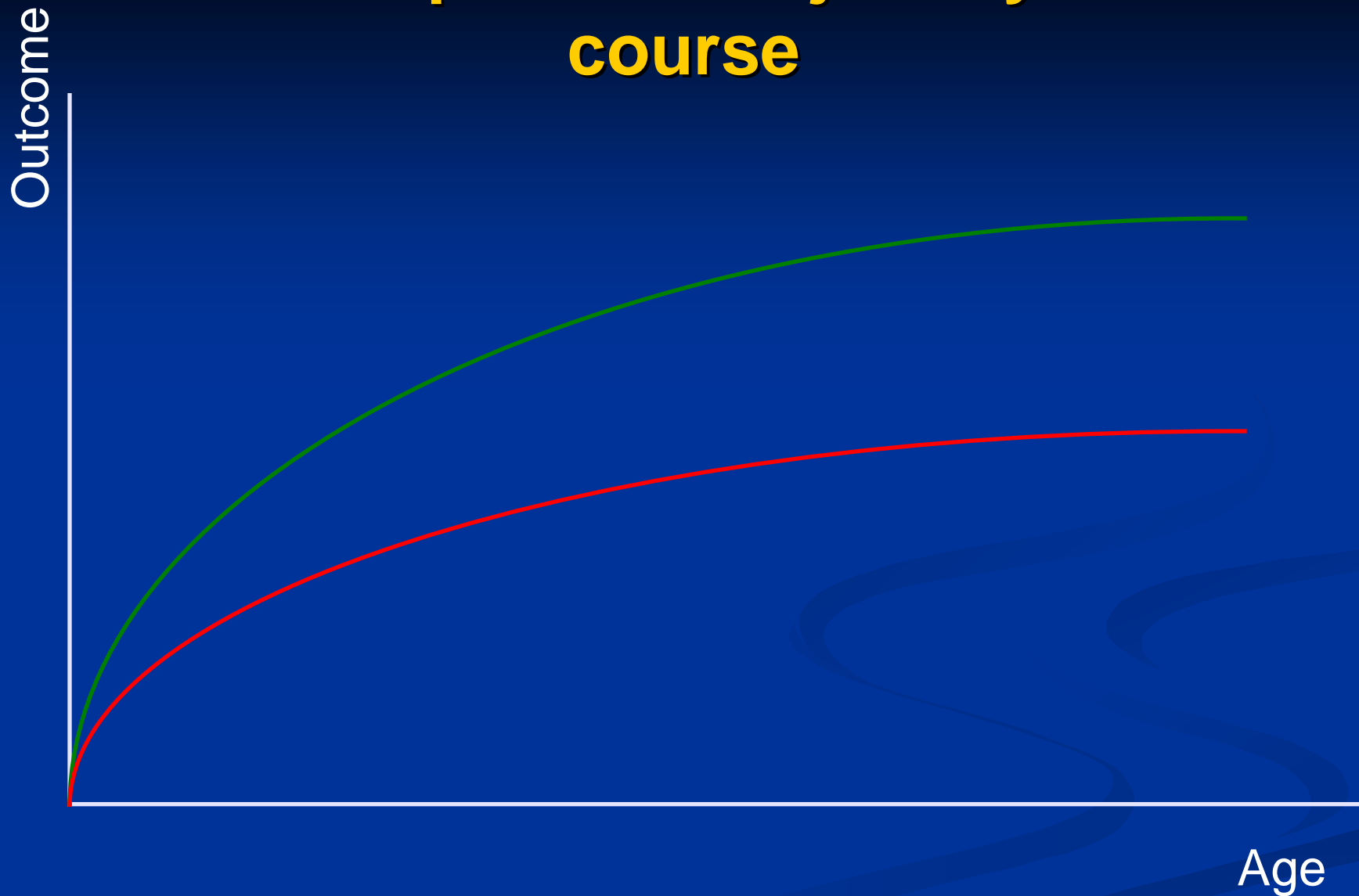
IOM/NRC Definition of Children's Health (2004)

“Children's health is the extent to which individual children or groups of children are able or enabled to (a) develop and realize their potential, (b) satisfy their needs, and (c) develop the capacities that allow them to interact successfully with their biological, physical, and social environments.”

From *Children's Health, the Nation's Wealth*,
National Academies Press, 2004.



The developmental trajectory and life course



How Risk Reduction and Health Promotion Strategies influence Health Development

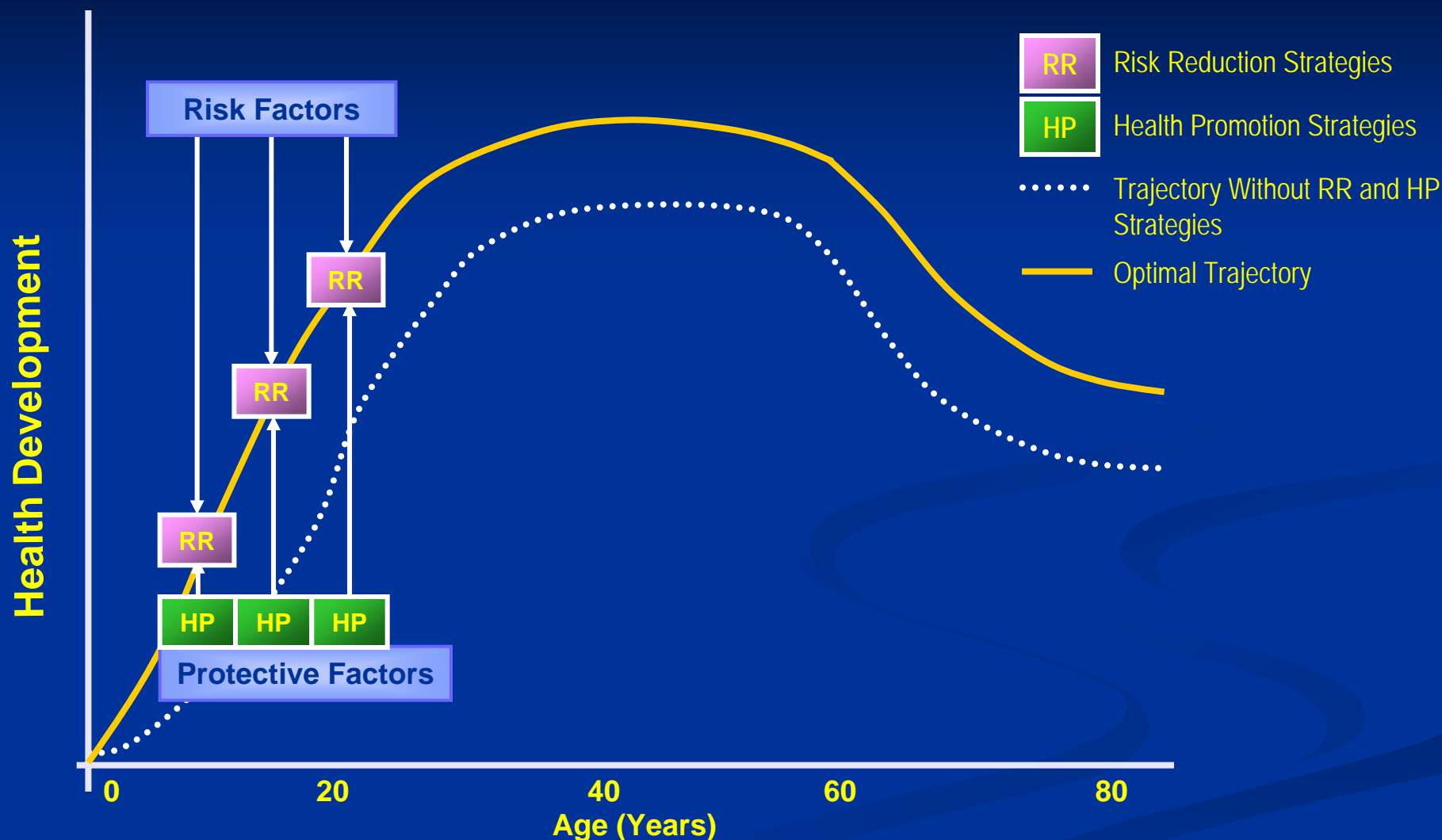
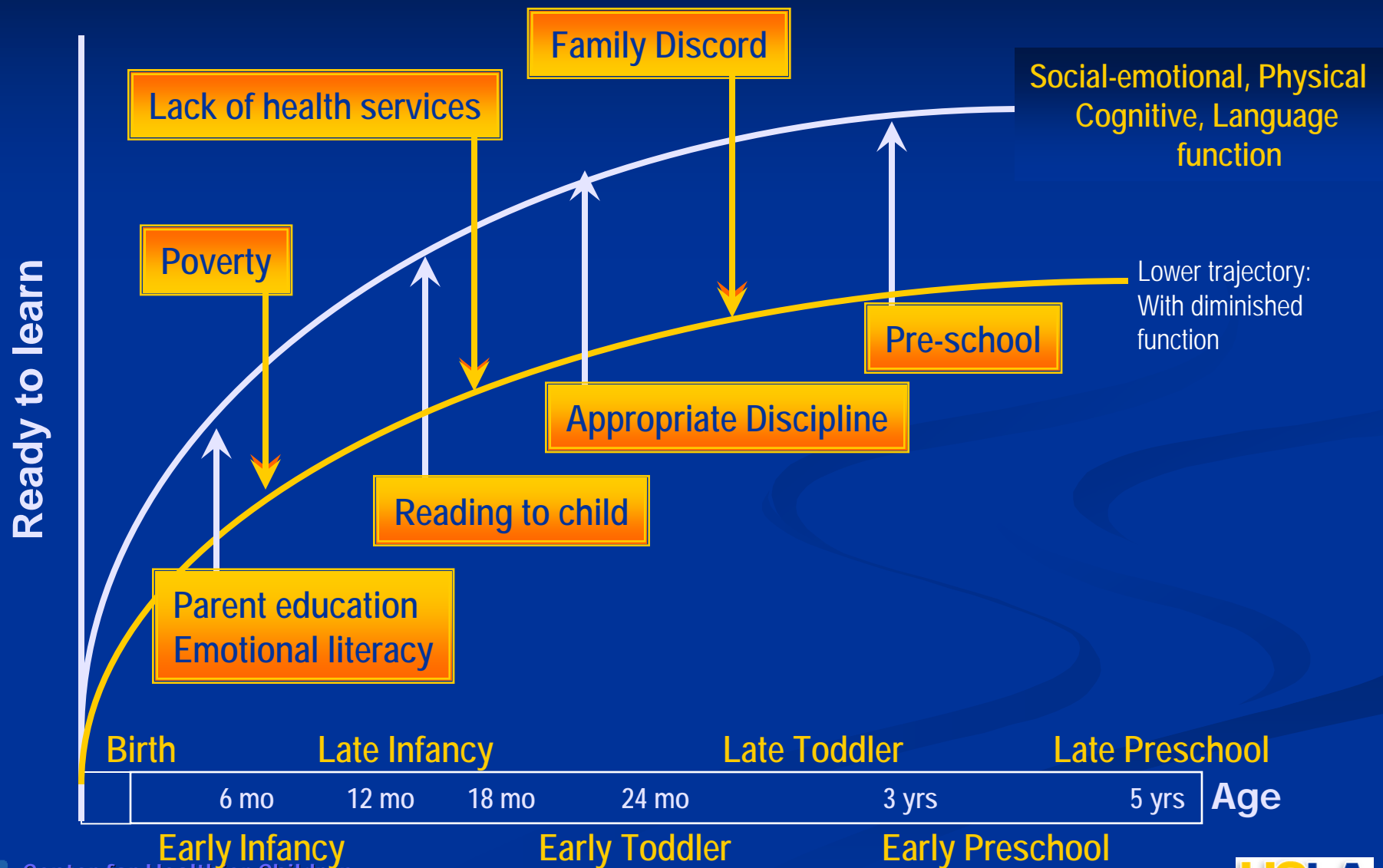


FIGURE 4: This figure illustrates how risk reduction strategies can mitigate the influence of risk factors on the developmental trajectory, and how health promotion strategies can simultaneously support and optimize the developmental trajectory. In the absence of effective risk reduction and health promotion, the developmental trajectory will be sub-optimal (dotted curve). From: Halfon, N., M. Inkelas, and M. Hochstein. 2000. The Health Development Organization: An Organizational Approach to Achieving Child Health Development. *The Milbank Quarterly* 78(3): 447-497.

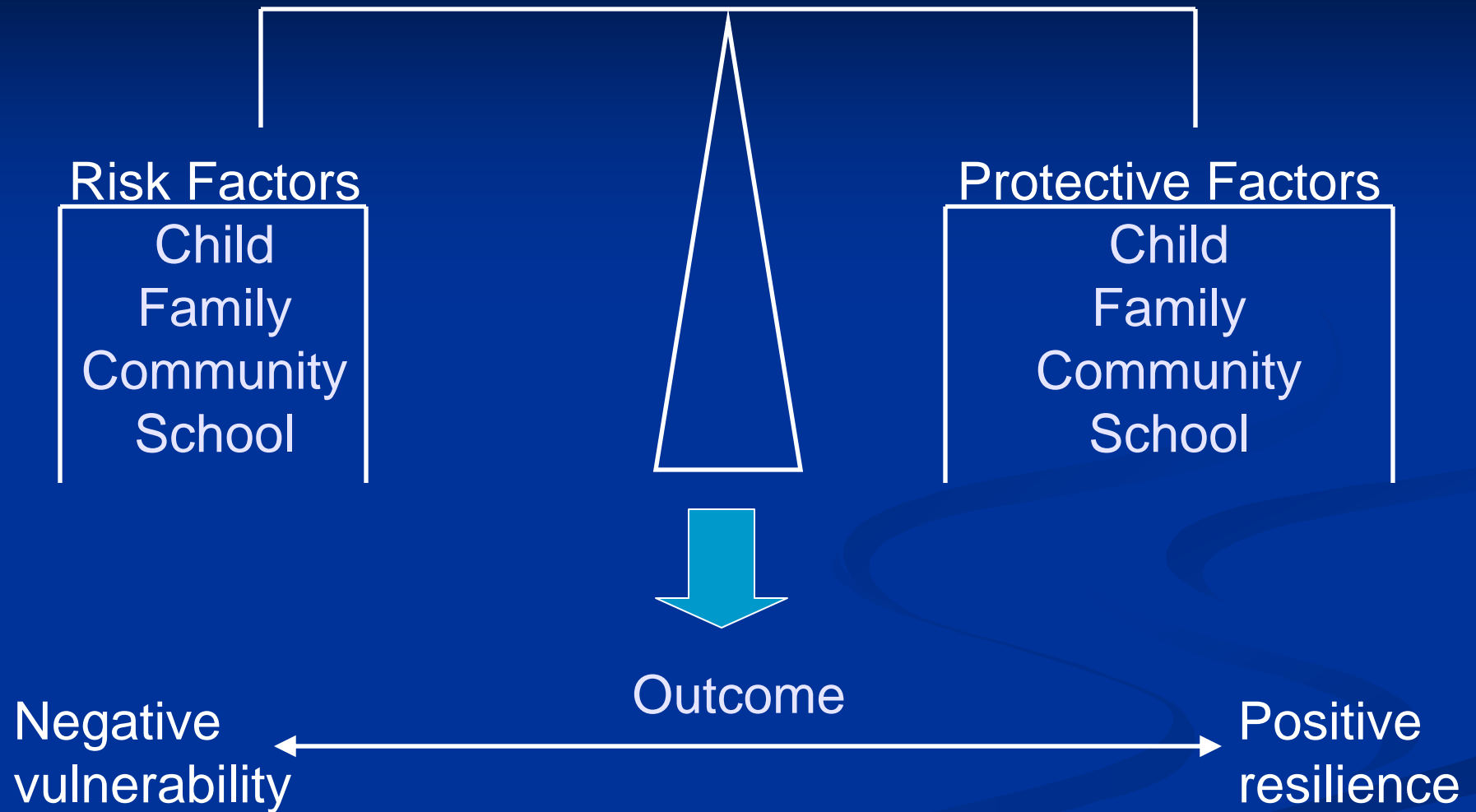
Strategies to Improve School Readiness Trajectories



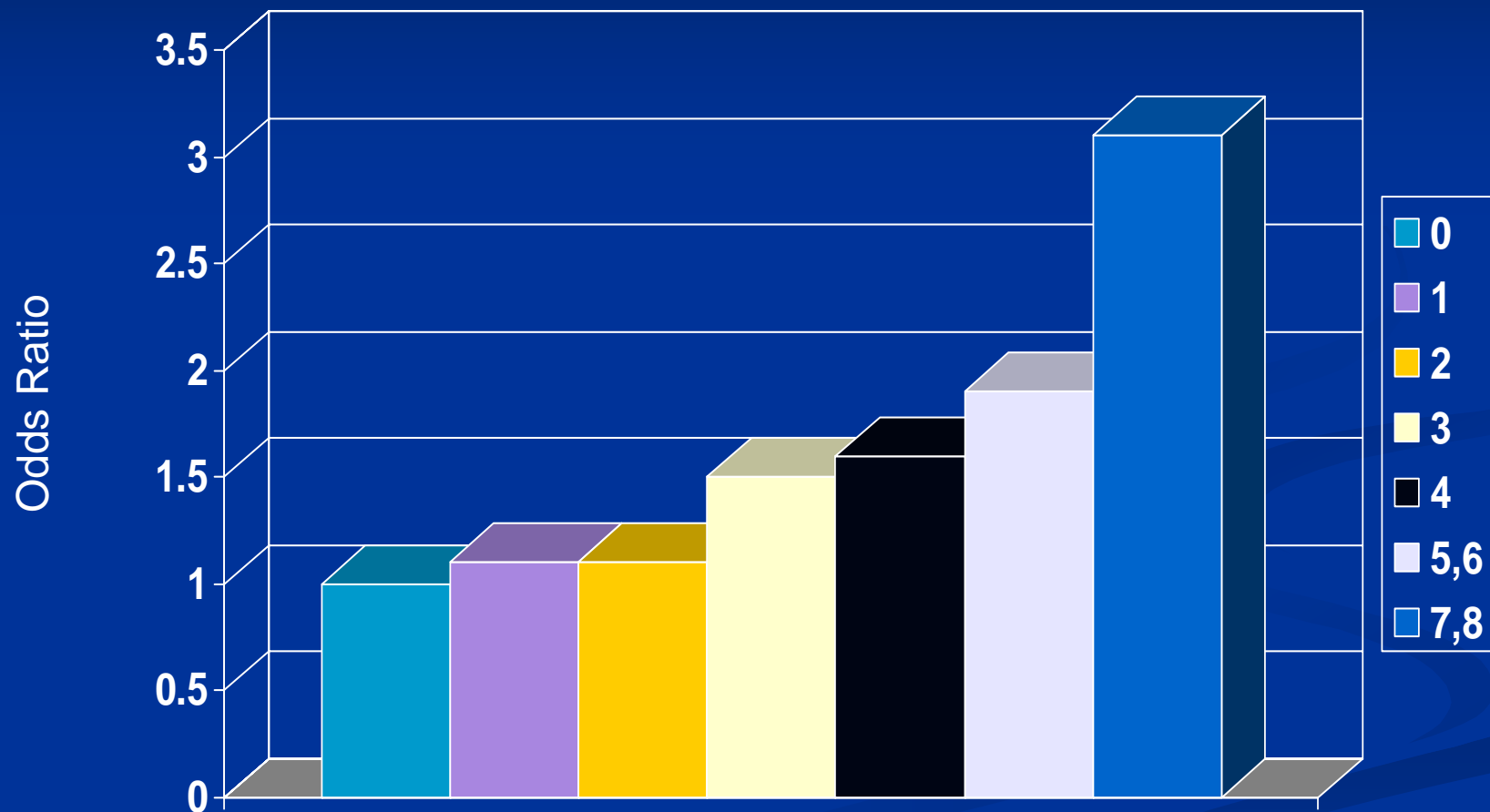
(Silburn, 2003)



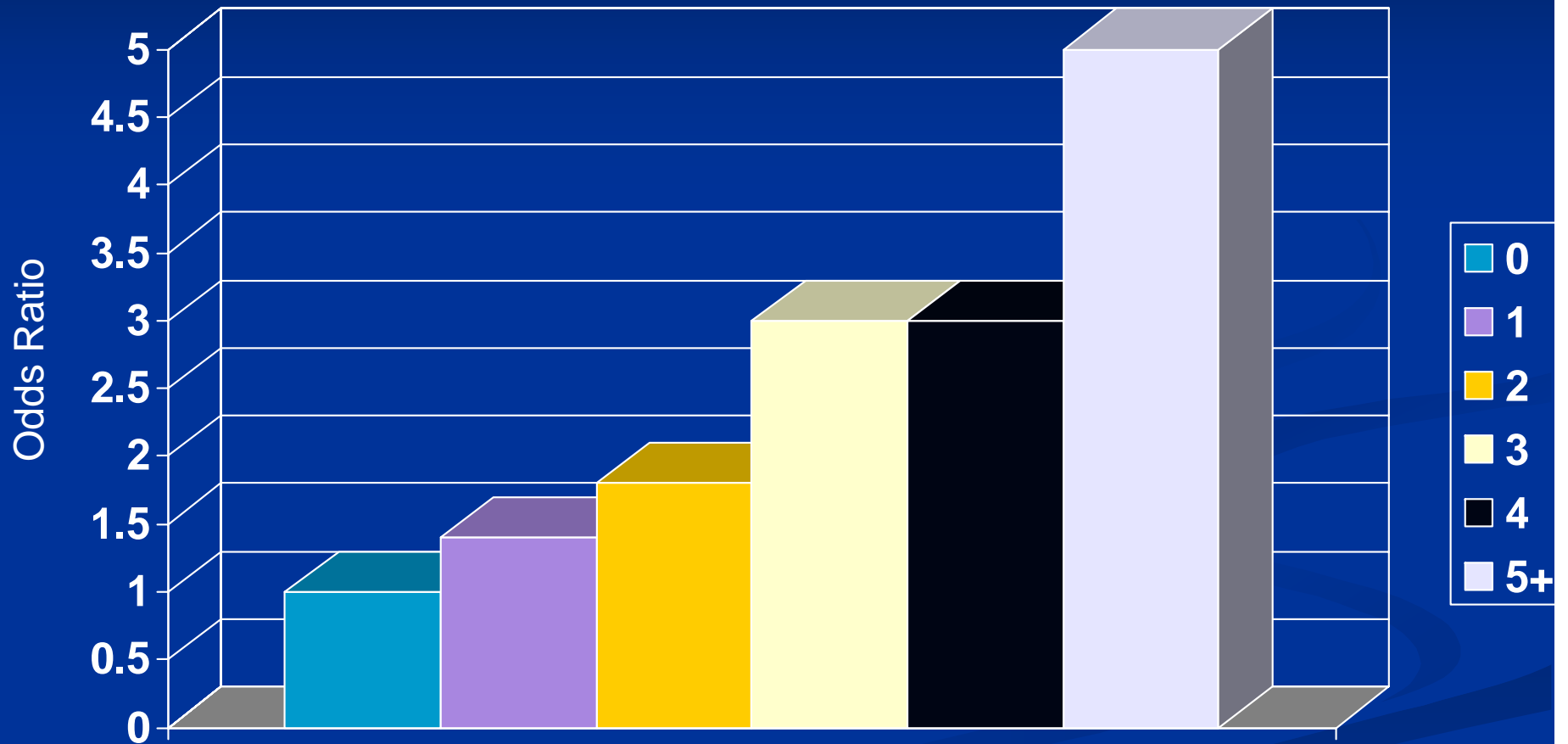
Risk and protective factors



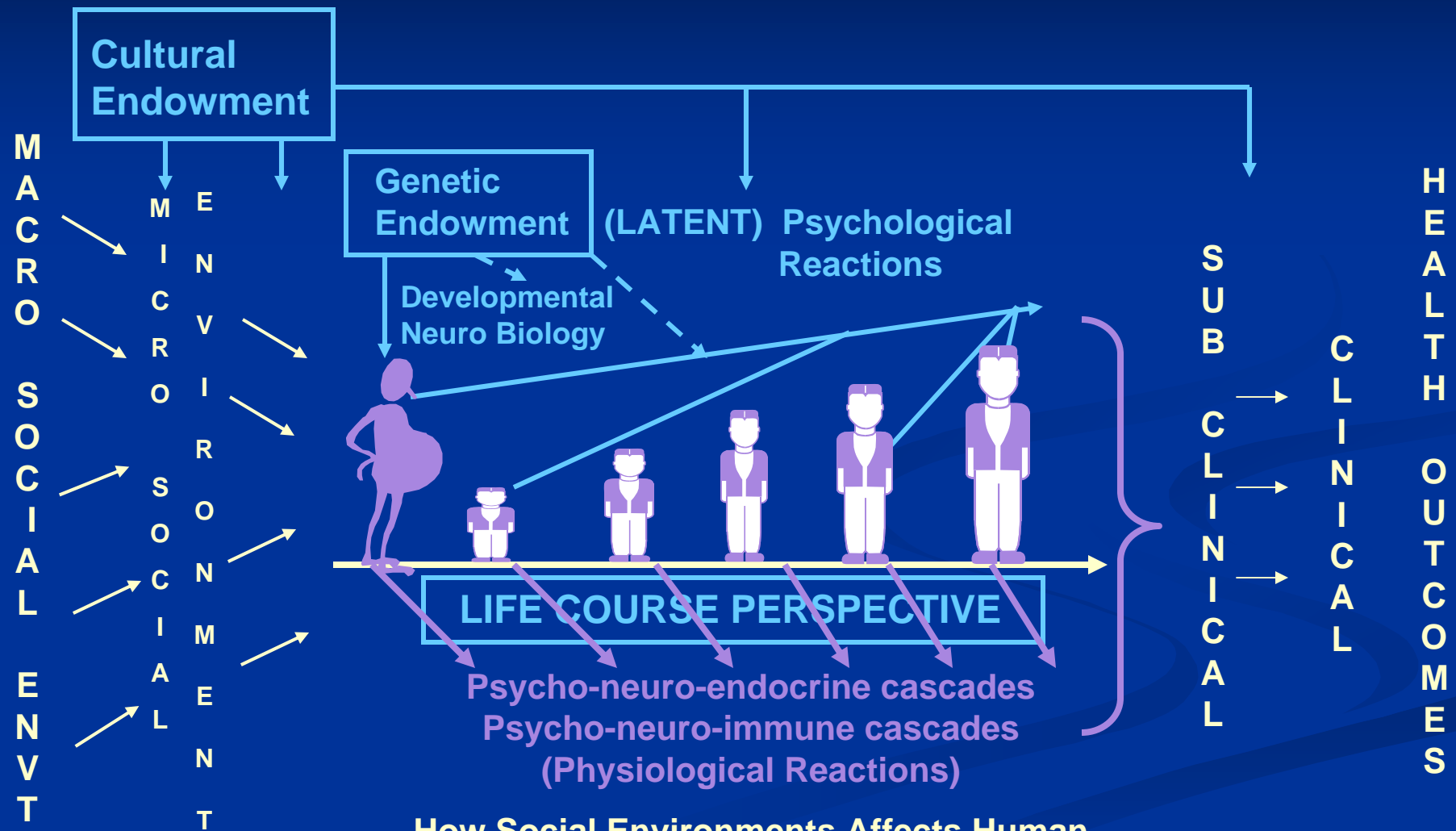
Adverse childhood events and adult ischemic heart disease



Adverse childhood events and adult depression



Schematic Depiction of Population Health Development*



How Social Environments Affects Human Health Via Intermediary Pathways



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*Hertzman

UCLA

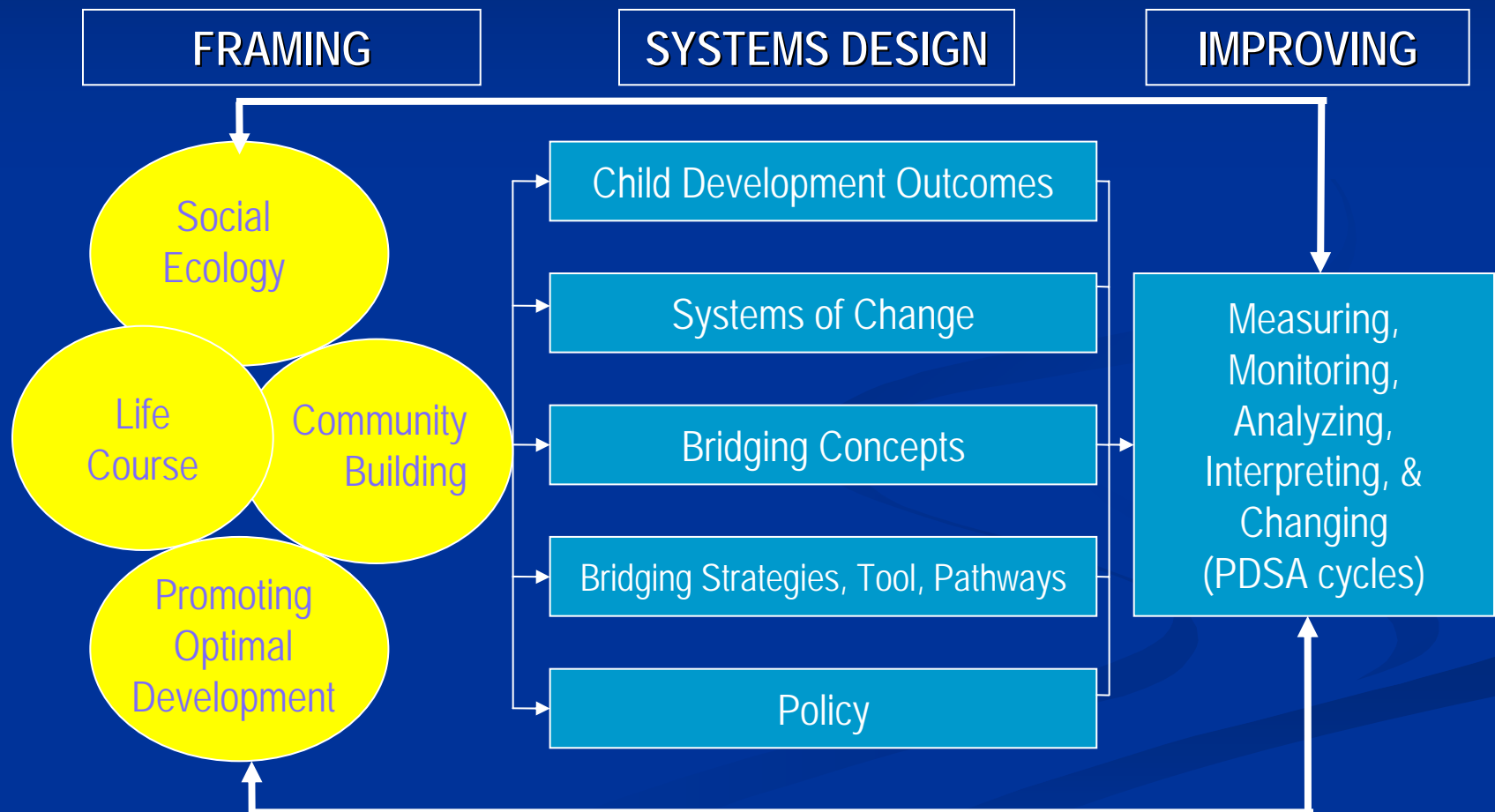
Services and Systems Research

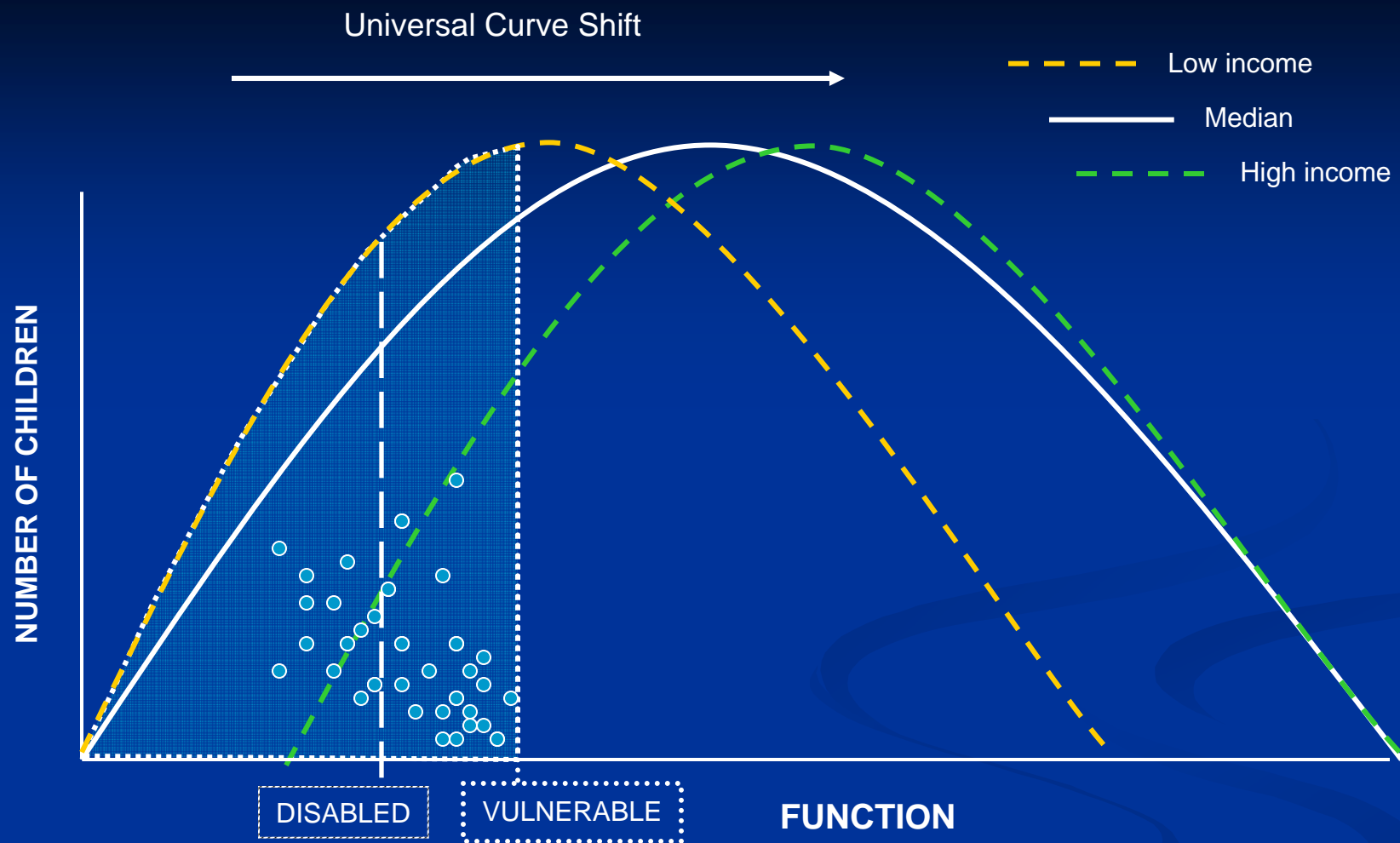
Population Strategies for Optimizing Child Developmental Health

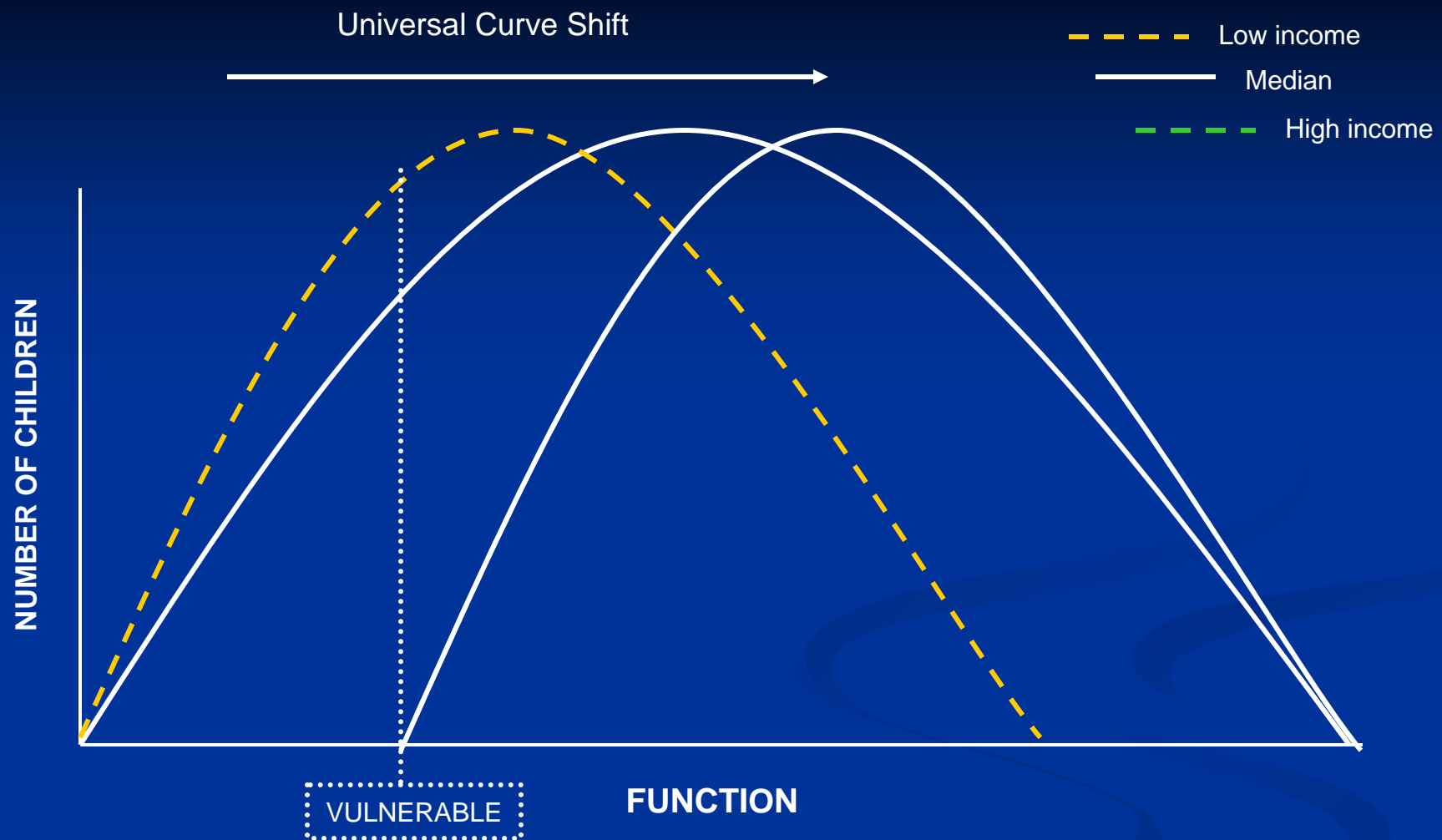
- *Optimize developmental trajectories and decrease disparities* between high and low trajectories
- Utilize *curve shifting strategies* to achieve population outcomes
 - Develop and implement *community building strategies* that address nested contexts of influence- an ecological approach
 - Use *system improvement strategies*



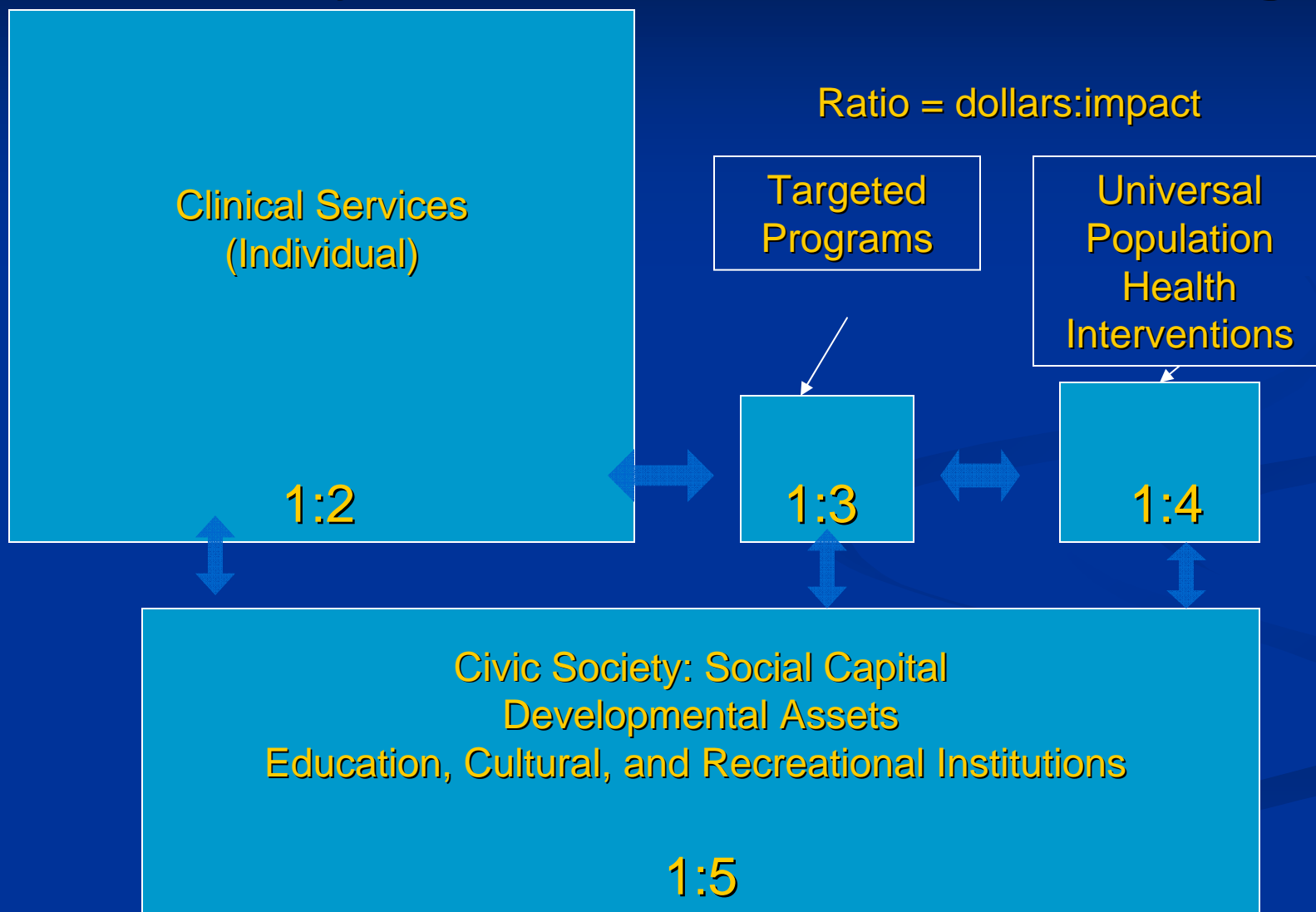
Towards an Integrated Model of Building Early Childhood Systems*

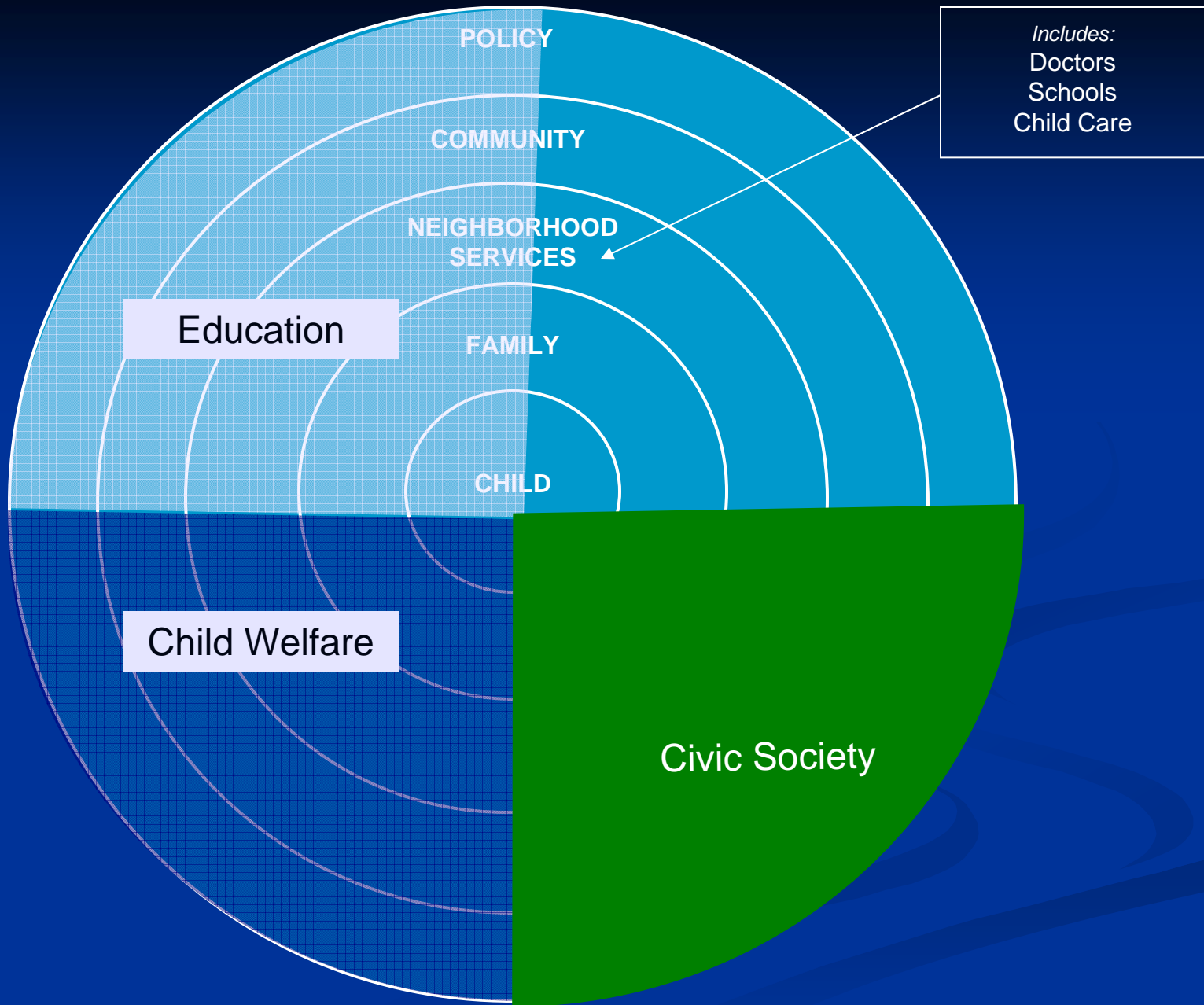






Interventions to Optimize Healthy Development & Well-Being





Optimizing Early Childhood Health and Development

- The metaphor of *building a bridge from birth to school* evokes a common vision for how different sectors, and levels of government can unite around a common goal, can build a responsive continuum of services and can enhance the developmental assets available for all young children
- To build a bridge from birth to school for all young children we need to have
 - Bridging Concepts
 - Bridging Policies
 - Bridging Strategies
 - Bridging Platforms
 - Bridging Pathways
 - Bridging Tools



Bridging Policies:

State Early Childhood
Comprehensive Systems Initiative

State Early Childhood Comprehensive Systems Initiative

■ *Goal:*

- Plan for and build a more comprehensive and integrated system among the current uneven, and often ineffective, mix of services for young children.

■ *States Receive Funding for:*

- Two years of strategic planning
- Three years of implementation



State Early Childhood Comprehensive Systems Initiative

- ***Five Components: Improving and Integrating Programs and Services to form a System of Care***
 - Health Care- Medical Home for all children
 - Early Care and Education
 - Social/Emotional Health
 - Parent Education
 - Family Support

Converging Service Sector Strategies to Create an Early Childhood Integrated Service Delivery Platform

Early Care & Education

- Deliberate Opportunities for Cognitive, Physical, Social and Emotional Learning
- Training on Child Health and Development
- Training on Maintaining a Safe and Healthy Early Care Environment
- Parent Education/Anticipatory Guidance
- Child Observation to identify possible physical/emotional health problems
- Linkage to Community Resources

Medical Home

- On-going Assessment of Child Development
- Elicit & Address Parent Concerns
- Anticipatory Guidance
- Preventive Health Care
- Acute and Chronic Health Care
- Integration with Community Resources for Referral

Integrated Service Delivery Platform

- Home Visiting
- Housing Services
- Adult Education
- Job & Life Skills Training
- Marriage & Family Counseling
- Case Management

Family Support

- Anticipatory Guidance from Pediatrician
- Anticipatory Guidance from ECE Provider
- Child Birth Classes
- Parenting Classes
- Advice from Friends and Family
- Parenting Information from Media Sources

Parent Education

Positive Parent-Child Interactions

Infant Mental Health Consulting in ECE Programs

Part C

Mental Health & Socio-Emotional Development

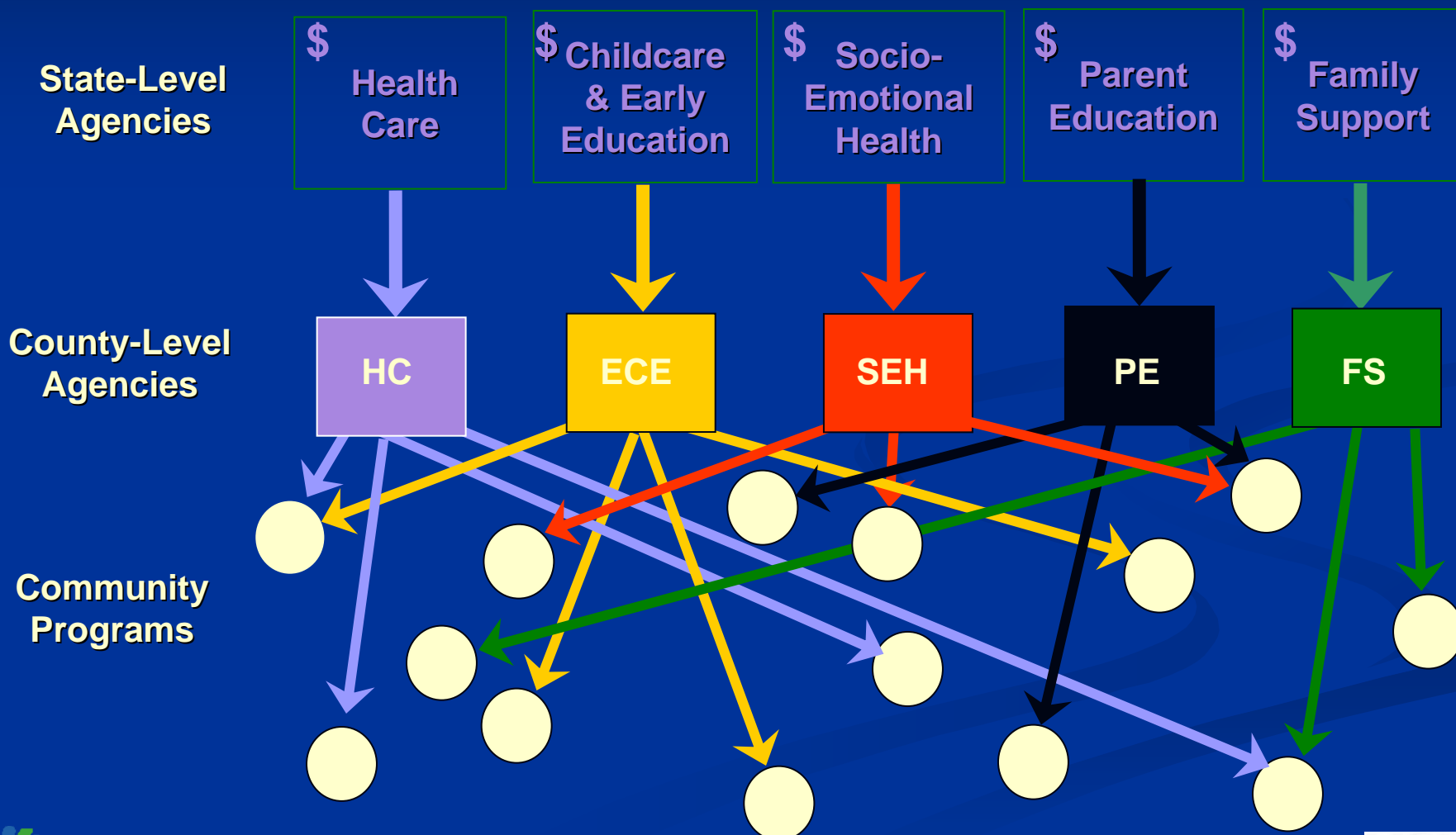


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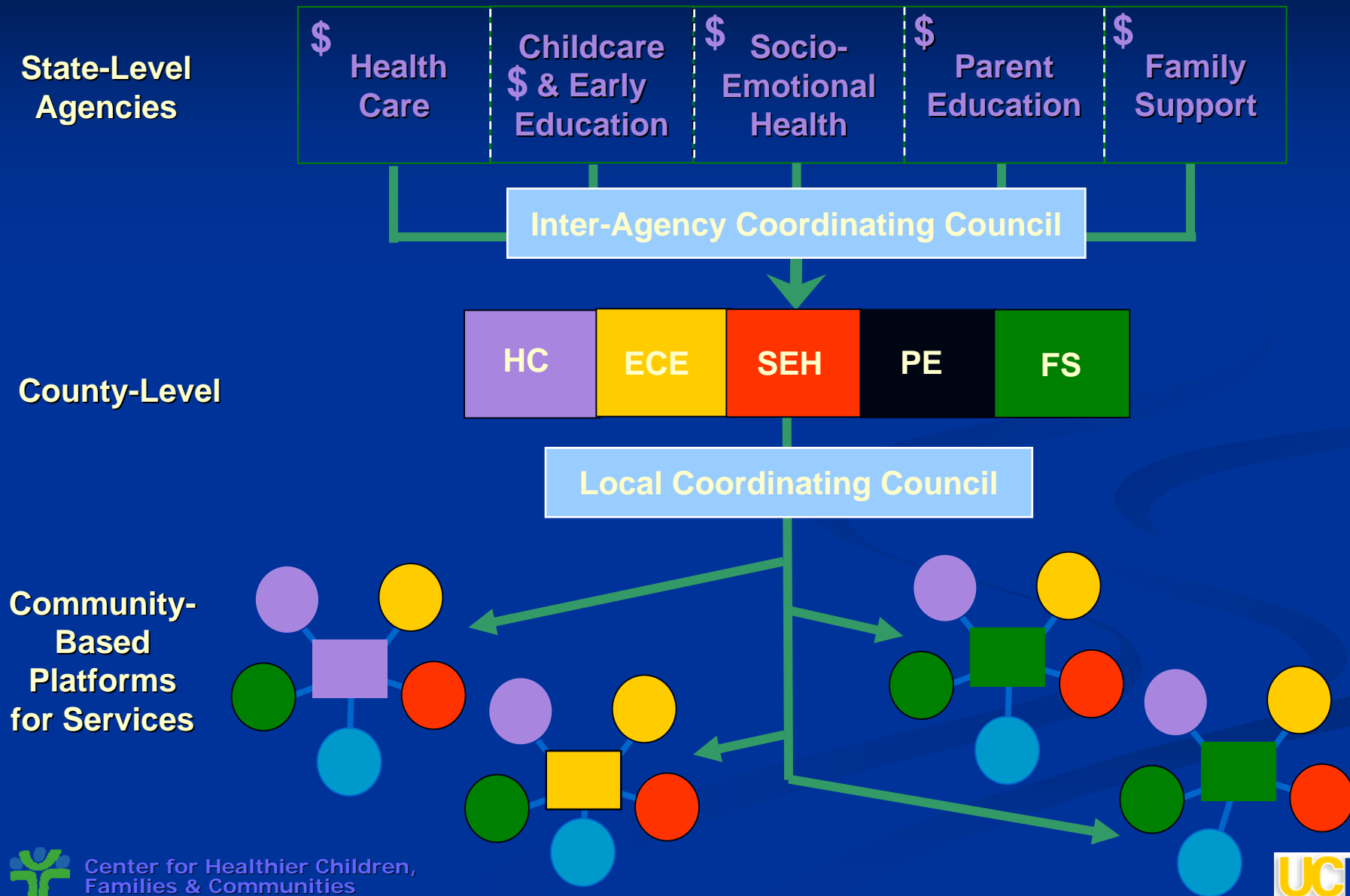
Where Are We Now?

Uncoordinated, Sector-Specific Services



Where Are We Going?

A Community Platform-Based Service System



Building Bridges

- Bridging Concepts: School Readiness, Health Development
- Bridging Policies: State Early Childhood Comprehensive Systems Initiative
- Bridging Strategies: Creating integrated & comprehensive medical homes, functionally integrated in to school readiness pathways
- Bridging Platforms: School-linked school readiness centers, Pediatric Medical Homes,
- Bridging Tools:
 - Promoting Healthy Development Surveys
 - Healthy Steps and NICHQ Improvement Methods
- Bridging Pathways: School Readiness Pathways

Bridging Concepts

**Healthy Development and
School Readiness**

School Readiness

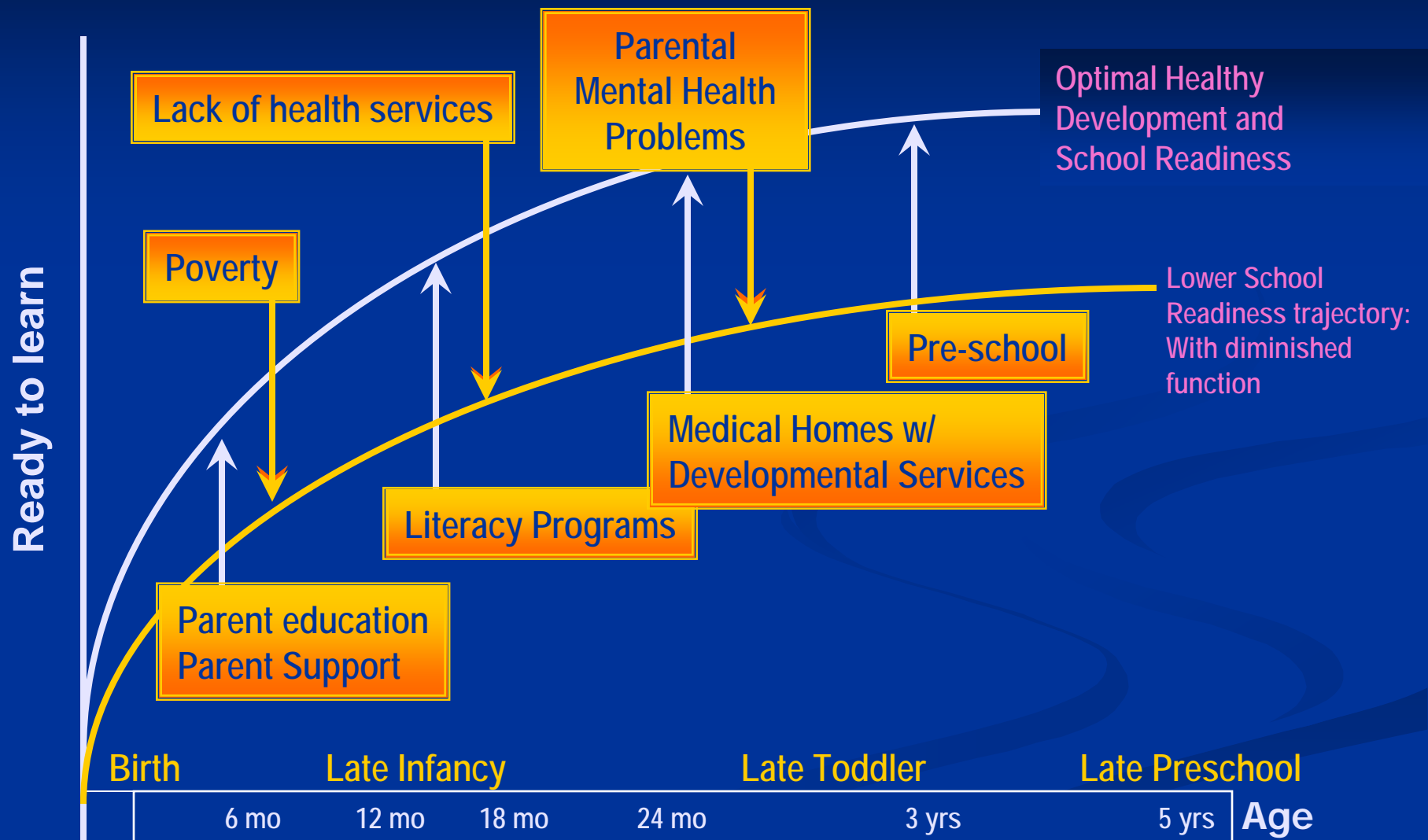
- National Goals Panel – School Readiness
 - i. Schools ready for children
 - ii. Children ready for Schools
 - iii. Families and Communities support
- NAEYC –children ready for schools
 - Cognition and general knowledge
 - Social Emotional Development
 - Physical Well Being & Motor Development
 - Language Development

School Readiness and Pediatric Care

- School Readiness is an important framing and bridging concept
- School Readiness as defined by NEGP is equivalent to a Health Related Quality of Life (HRQL) measure for young children
- Pediatricians have always been in the school readiness business
- Pediatricians need to consider how to take advantage of national focus on school readiness and connect practice and quality improvement efforts to this important new policy frame.



Healthy Development & School Readiness Trajectories

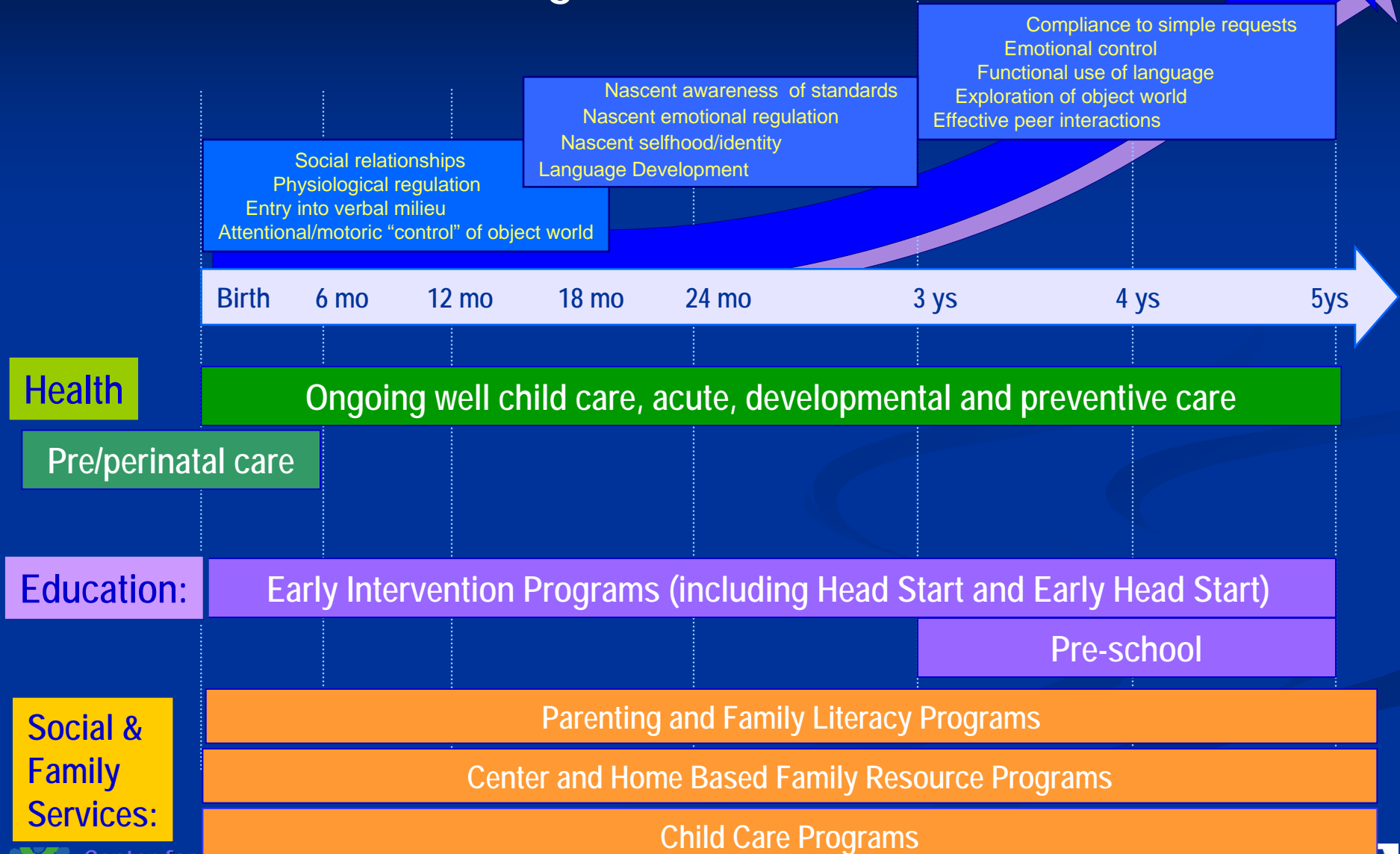


Bridging Strategies

School Readiness Delivery
Platforms

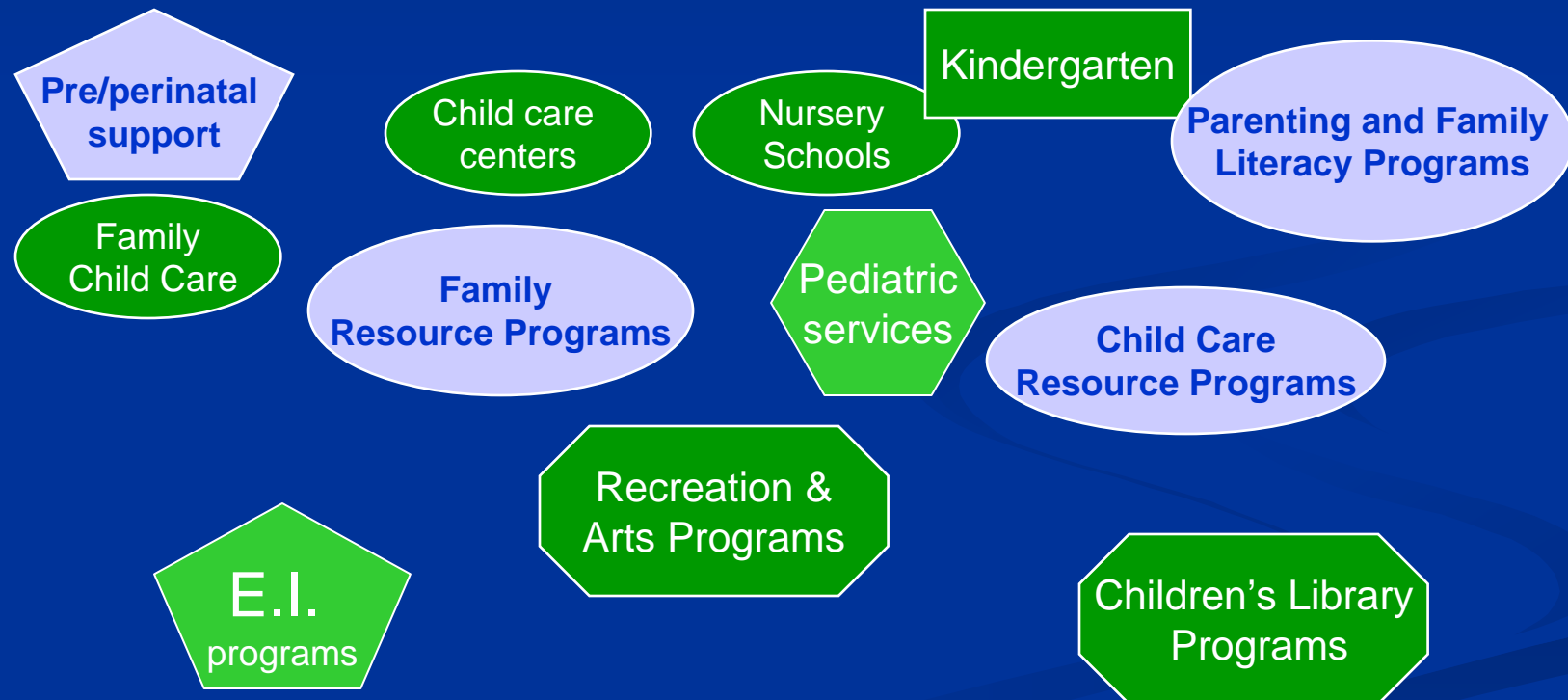
Readiness to Learn Trajectory

Service sectors and Programs that influence school readiness



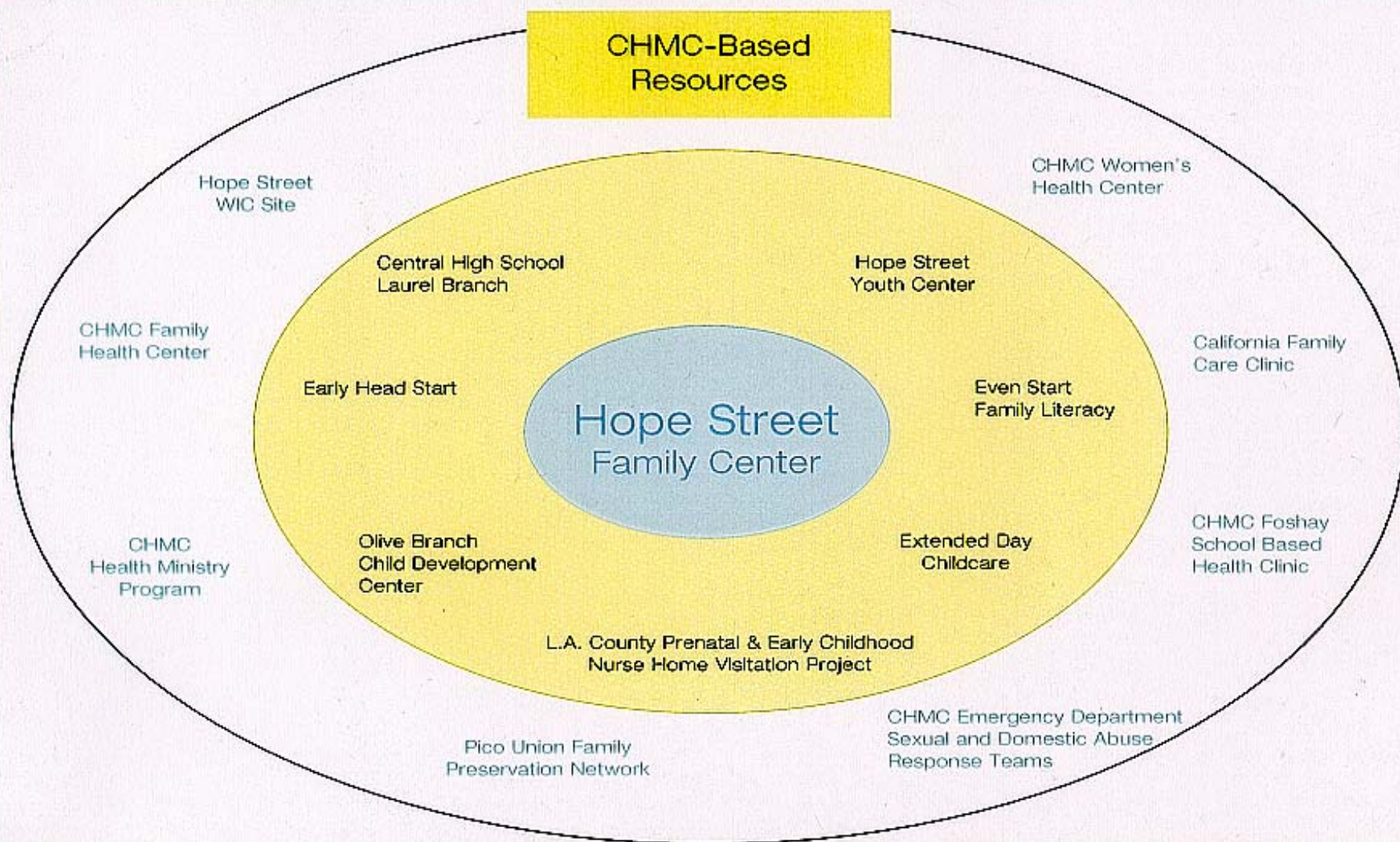
Service Organization for Early Brain and Child Development

Programs influencing Early Brain, Child Development & School Readiness



Service Organization for Early Child Development and Parenting

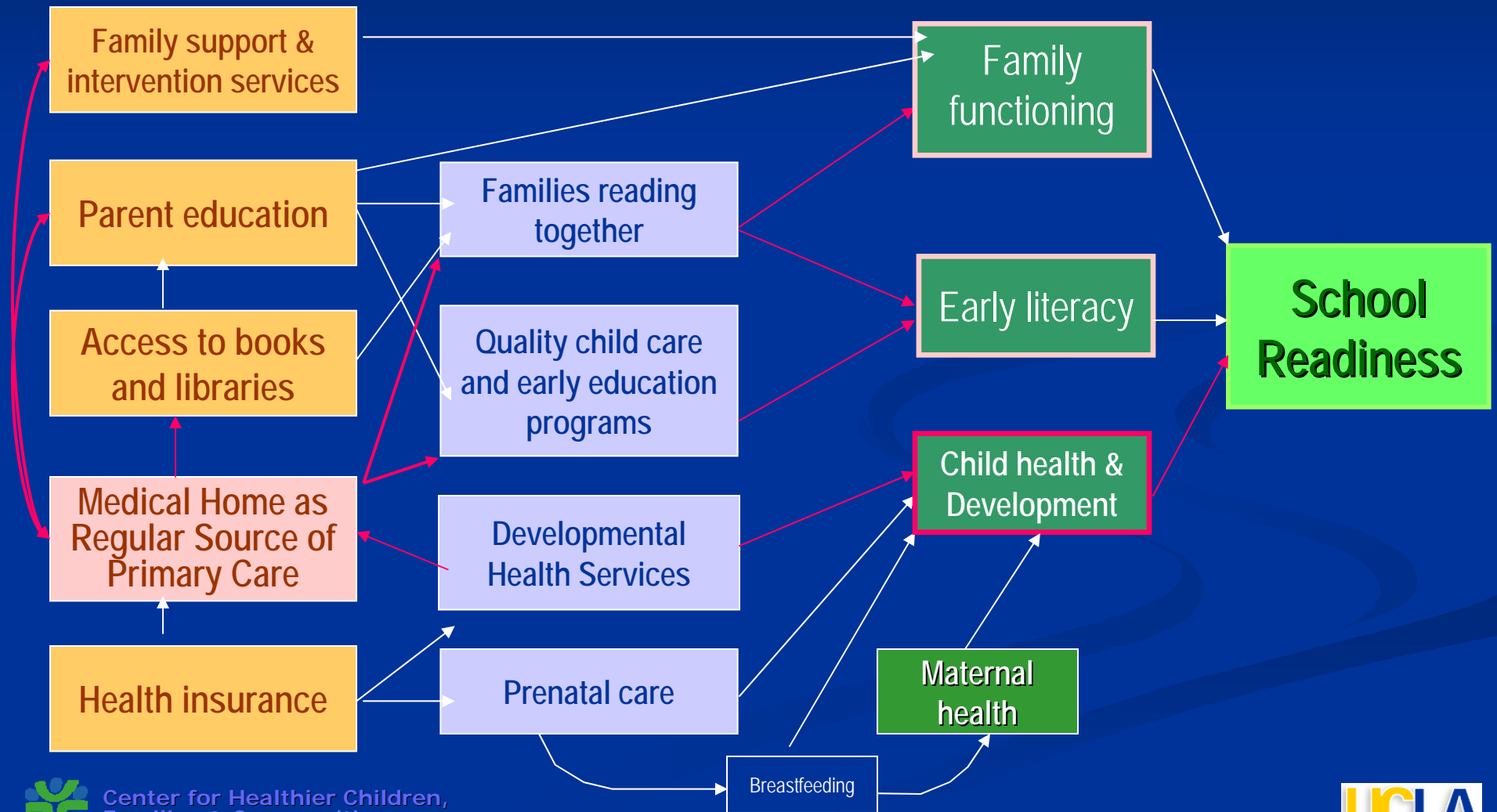




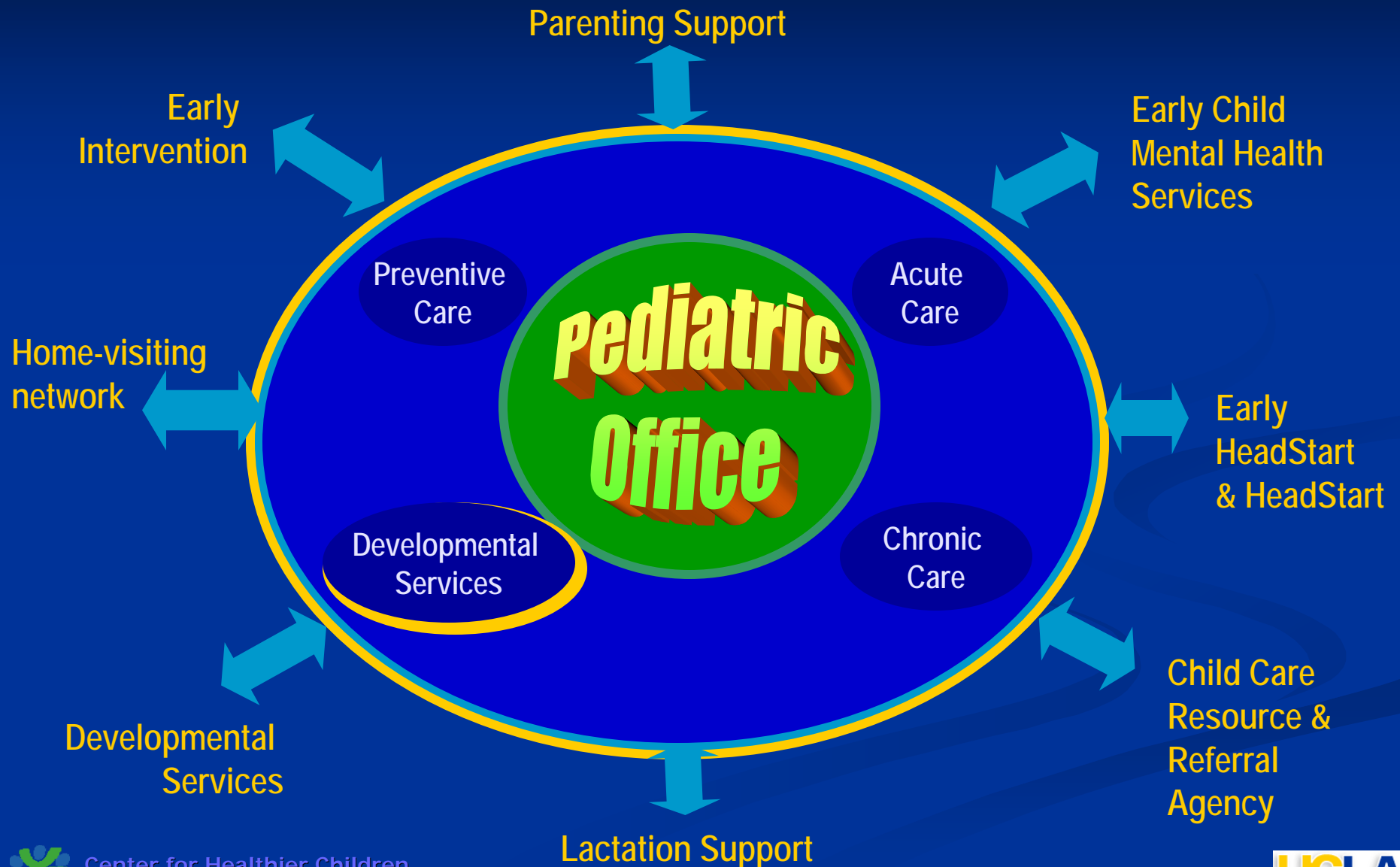
Bridging Strategies

**School Readiness Delivery
Pathways**

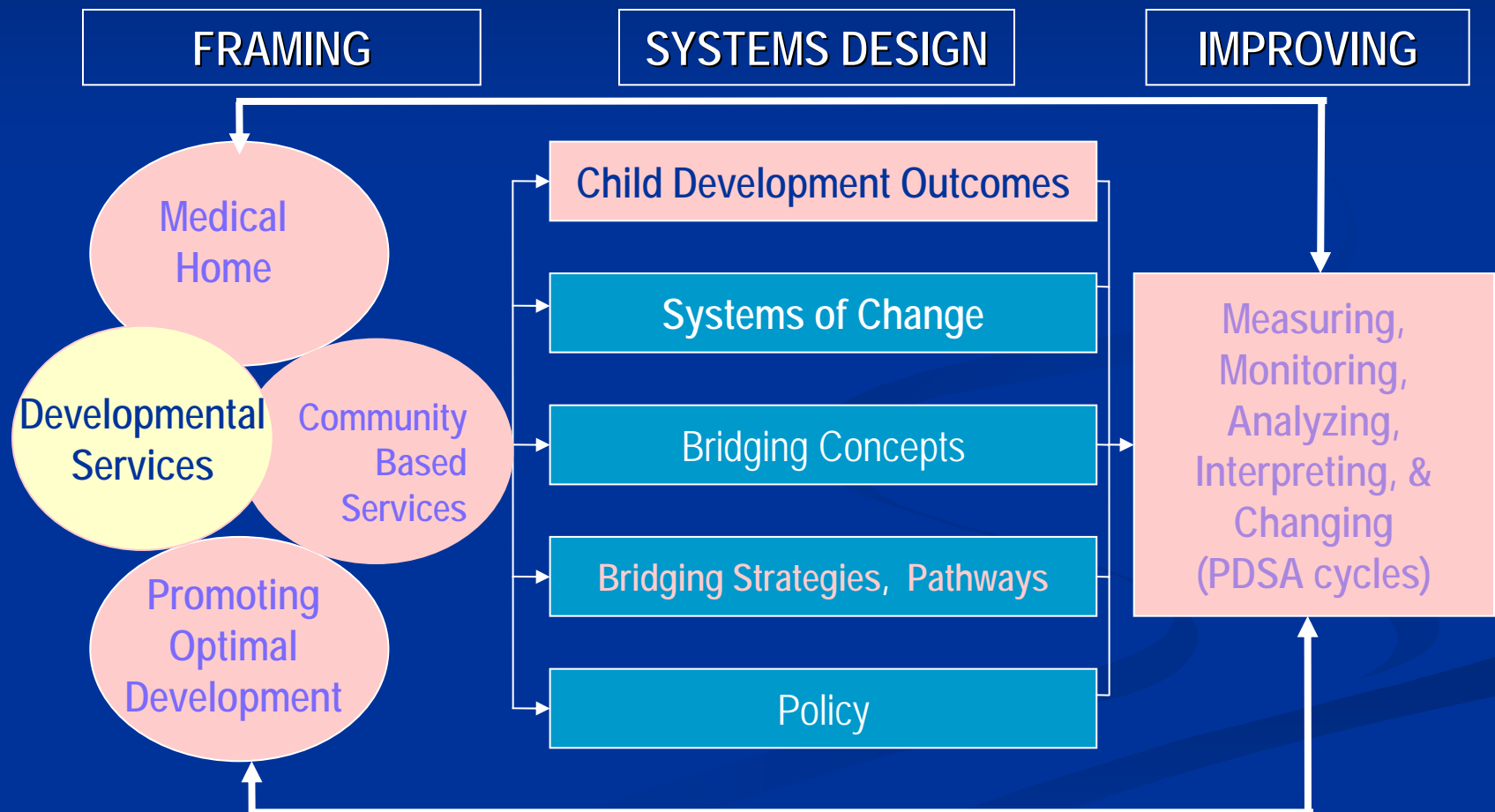
Critical Pathway to School Readiness



Service Organization for Early Child Development and Parenting



Medical Home Components of an Integrated Early Childhood Systems*

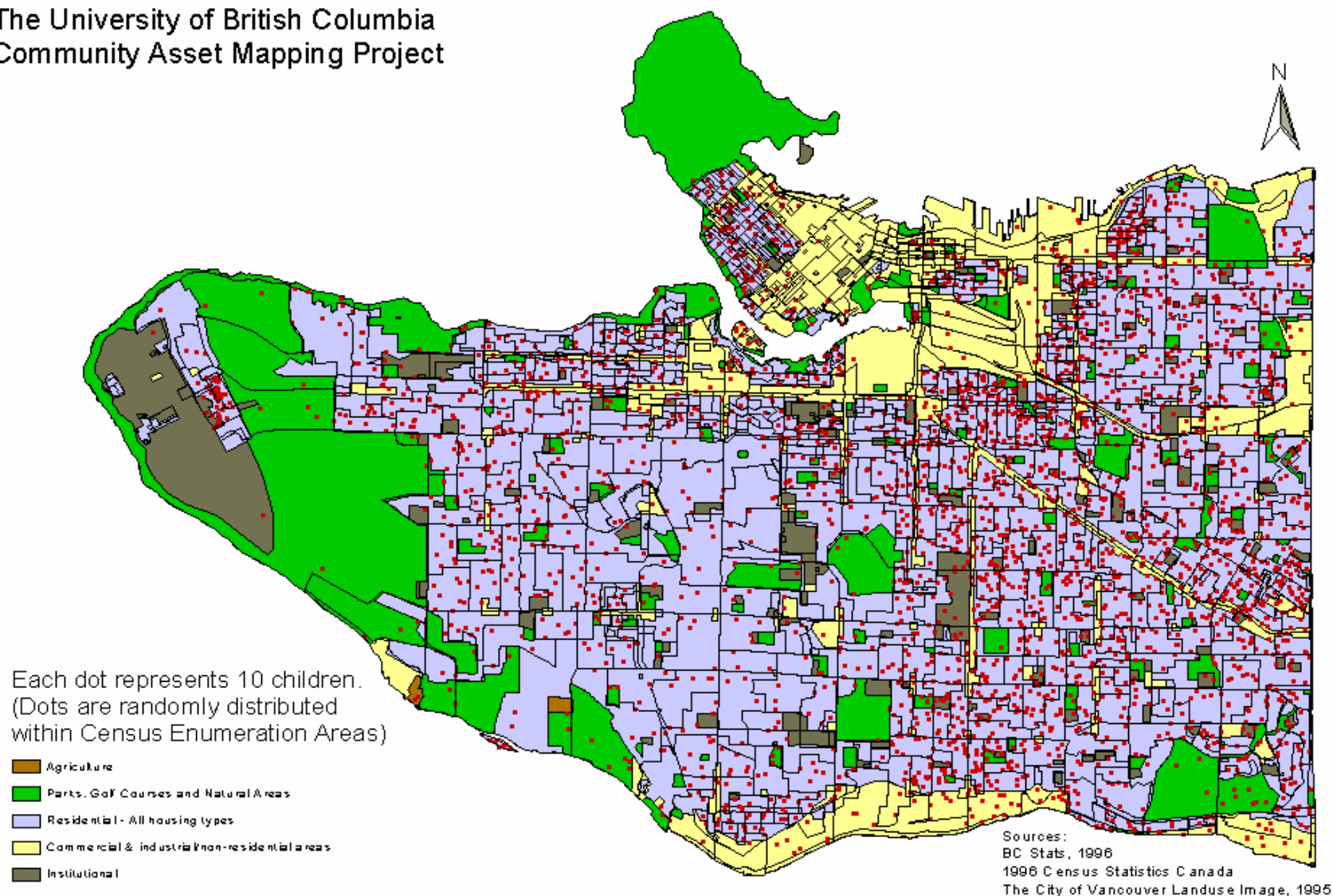


Bridging Strategies

School Readiness Measurement
Tools

Map 1.0/Where do children (0-5) live in Vancouver?

The University of British Columbia
Community Asset Mapping Project



Early Development Instrument (EDI)

- Teacher-completed
- 103 questions grouped into the five domains
- Indicators of special problems and special skills
- Up to 10 questions about the child's pre-school experience
- Paper or electronic version

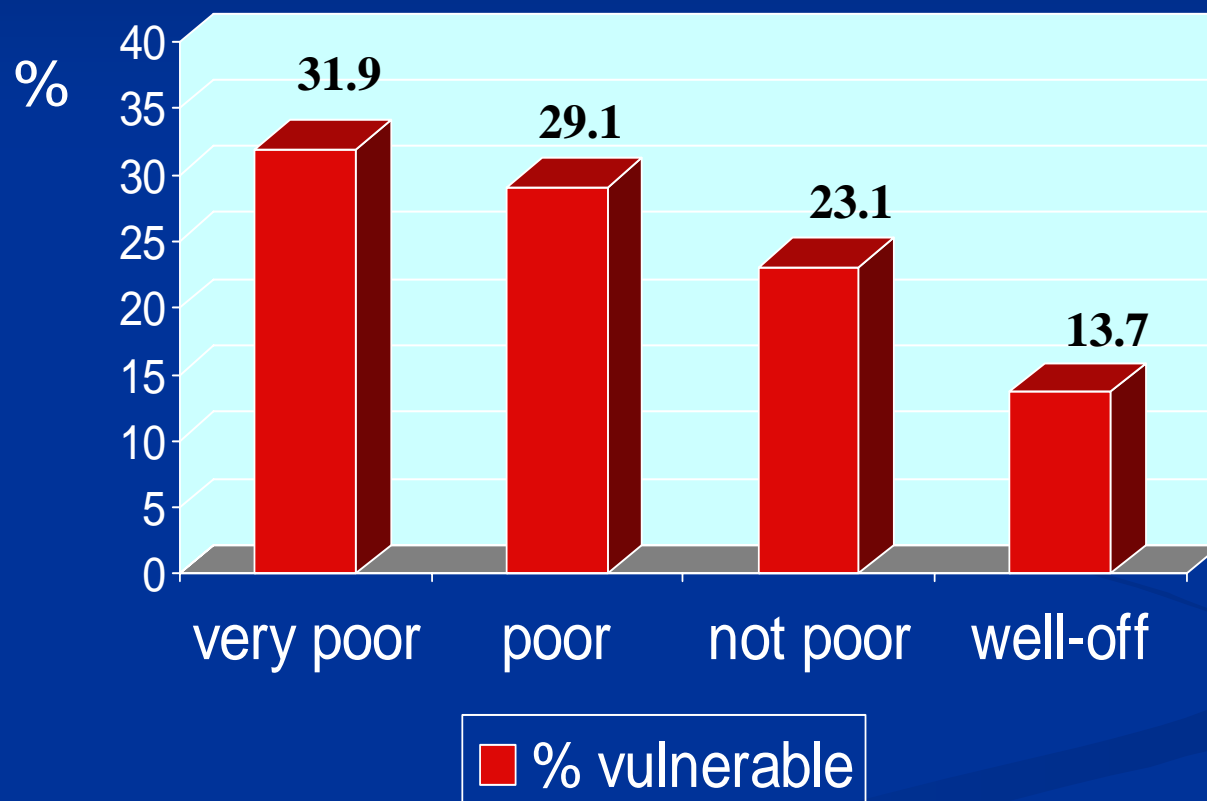


Outcome measurements

- % Children who score in the lowest 10th percentile on each of the 5 domains
- Vulnerable: Children who score low in one or more of the five domains of the EDI
- Multiple Challenge Index (MCI)
- Means, SD, distribution
- General norms available for comparison



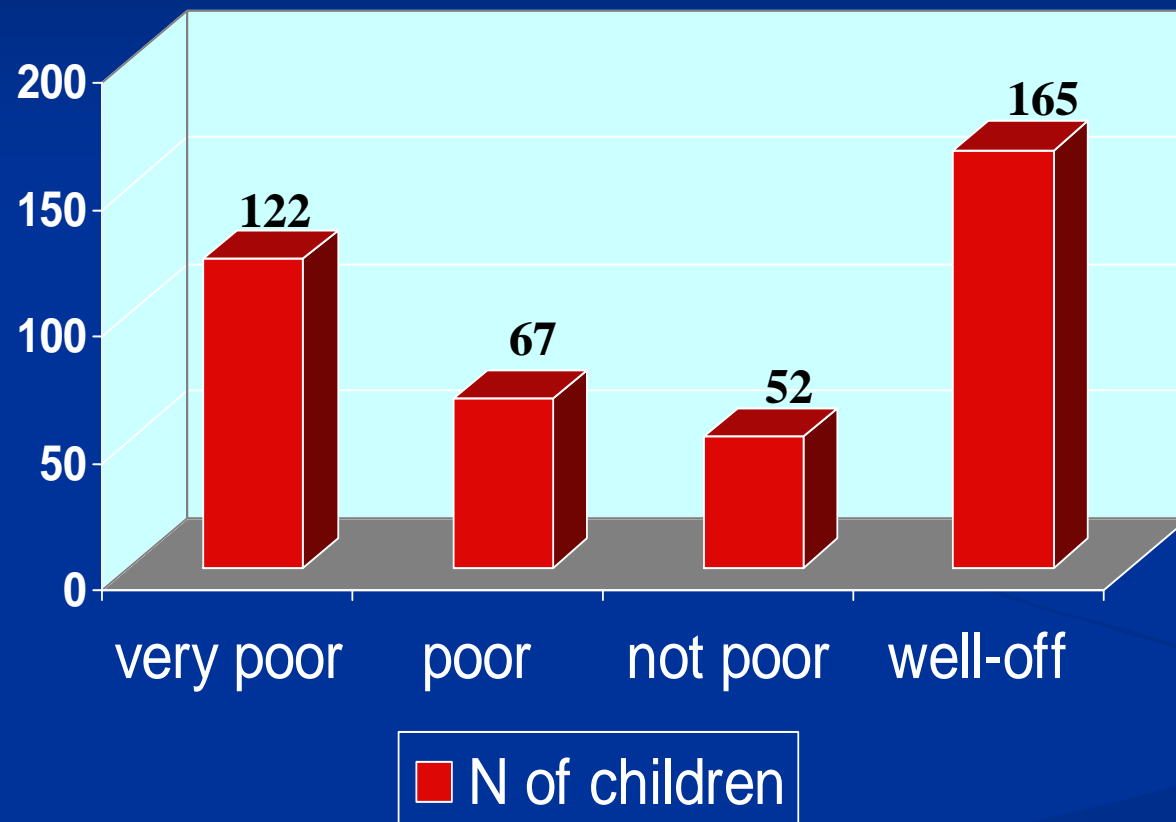
Readiness to Learn at School by Family Income (N=2039)



Source: NLSCY/UEY 1999-2000; EDI 1999-2000
Center for Healthier Children,
Families & Communities

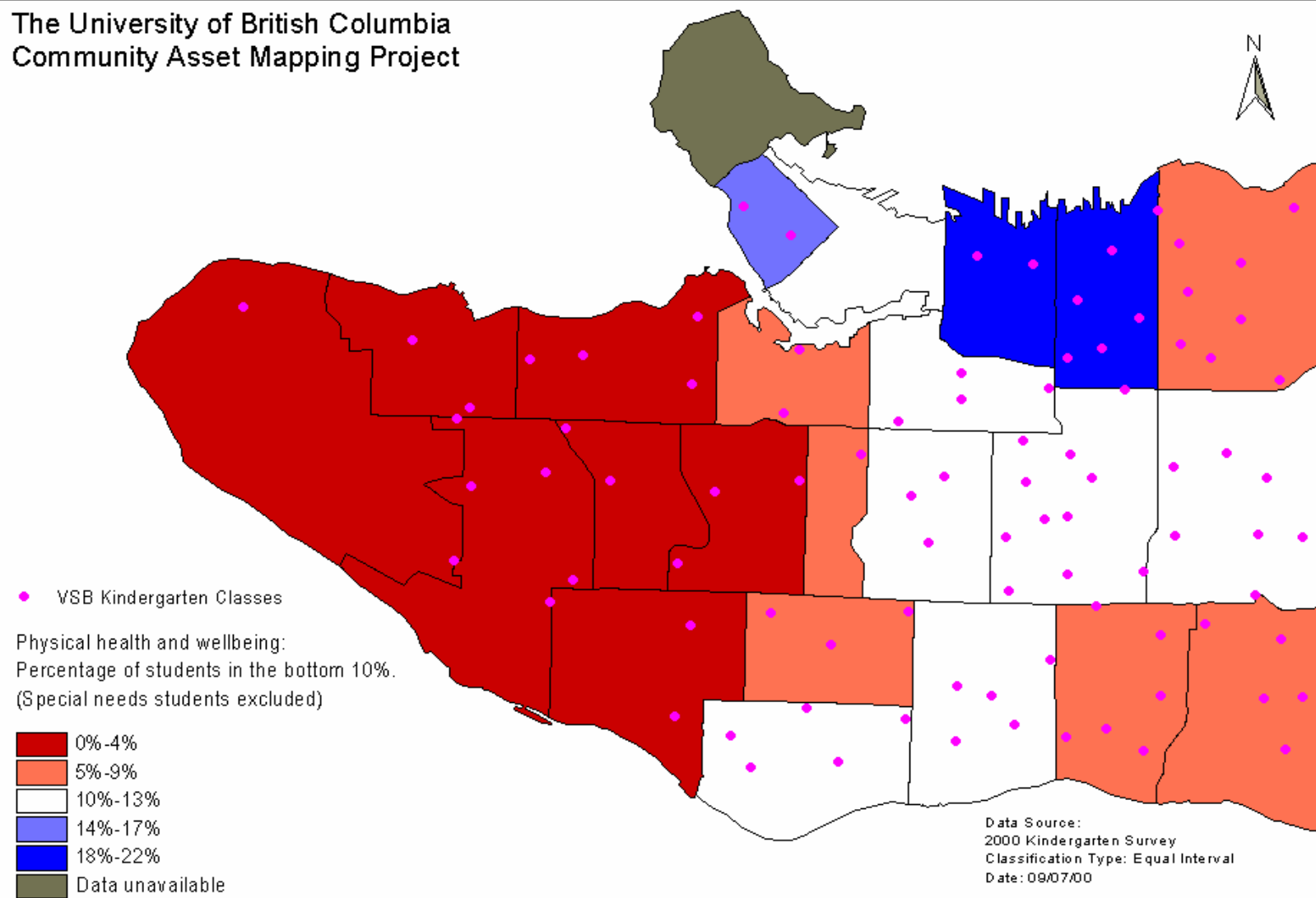


Number of “Vulnerable” children

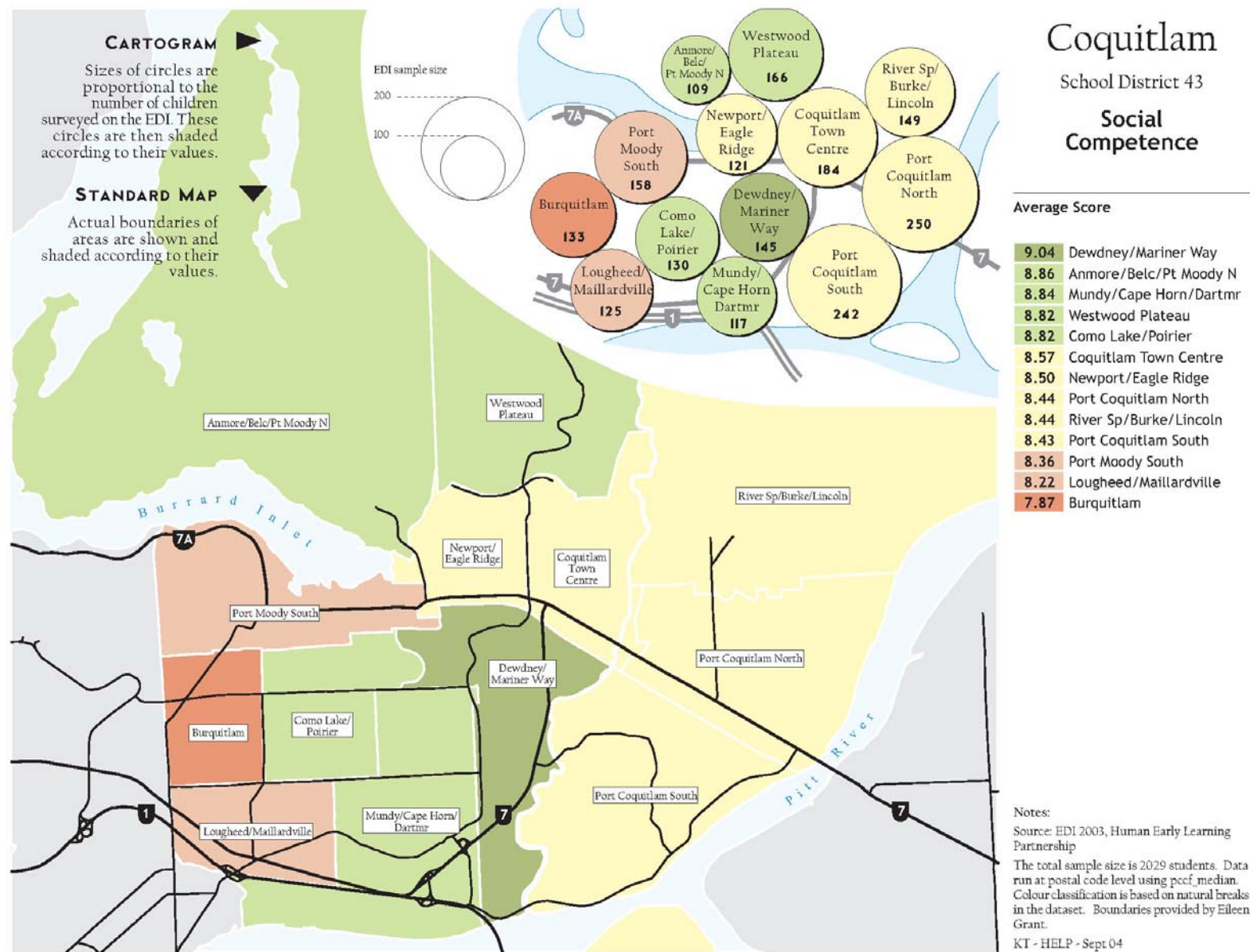


Physical Health and Well-Being: Percent students in the bottom 10%

The University of British Columbia
Community Asset Mapping Project



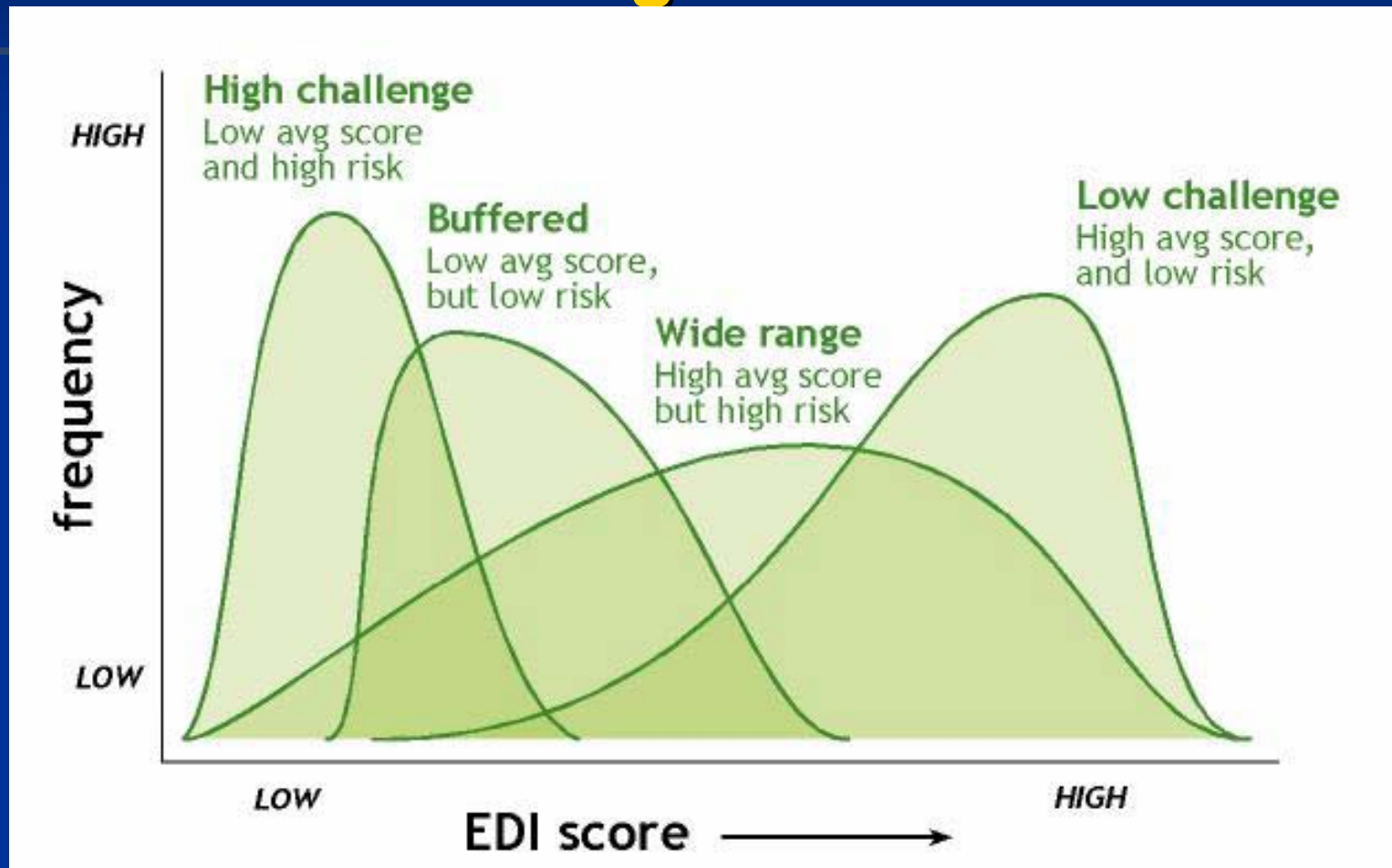
Average Score on the Social Competence Subscale of the EDI, 2003



From Hertzman



Early Development Instrument (EDI) score and Risk: 4 associated categories



From Hertzman



Bridging Strategies

**Improving the Quality of
Developmental Health Care**

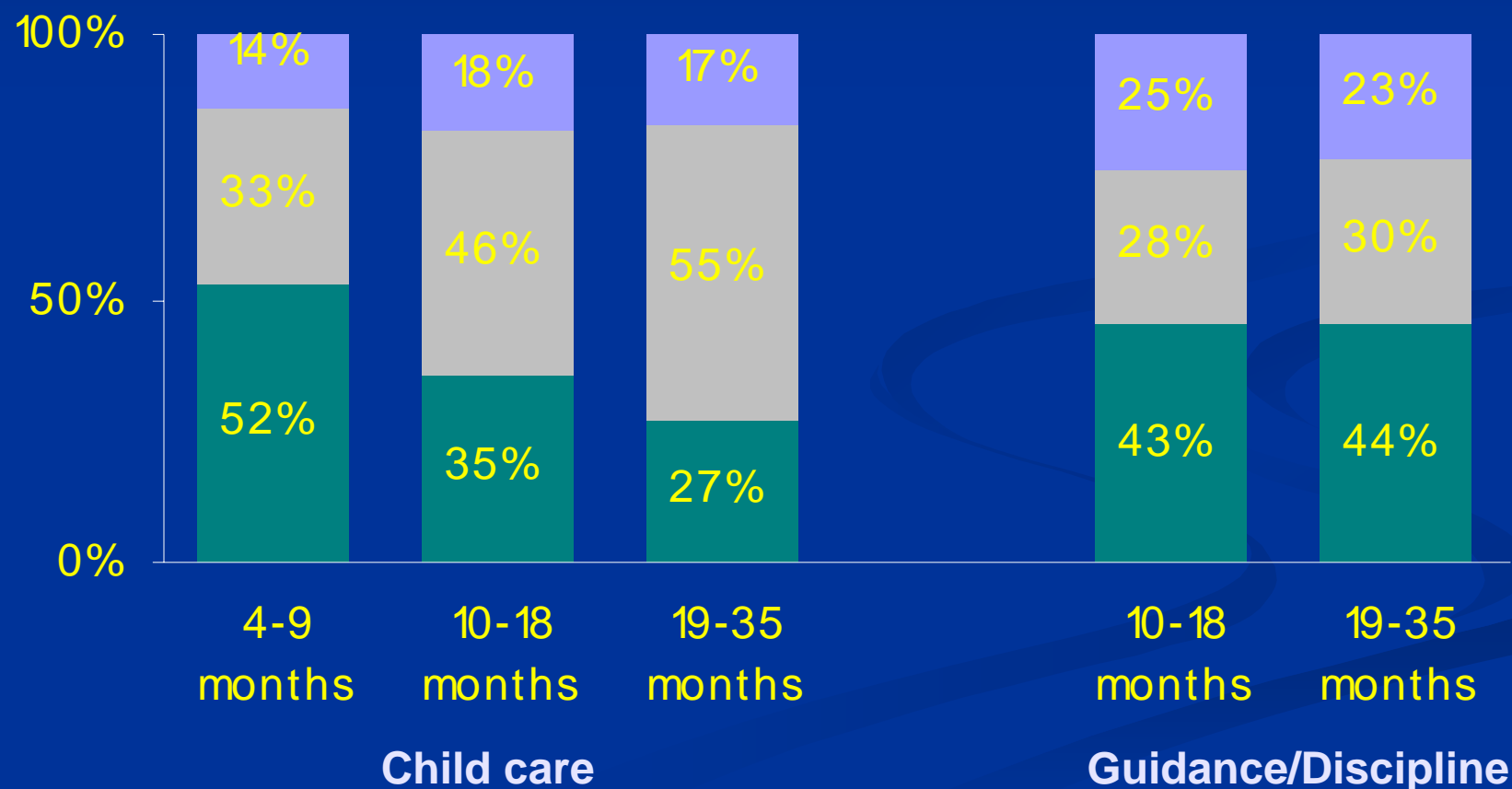
Developmental Services

- Assessment Services
 - Surveillance – community wide approaches
 - Screening- targeted or universal
 - Assessments- focused on those who need it
- Anticipatory Guidance and Education
- Developmental Interventions
- Care Coordination

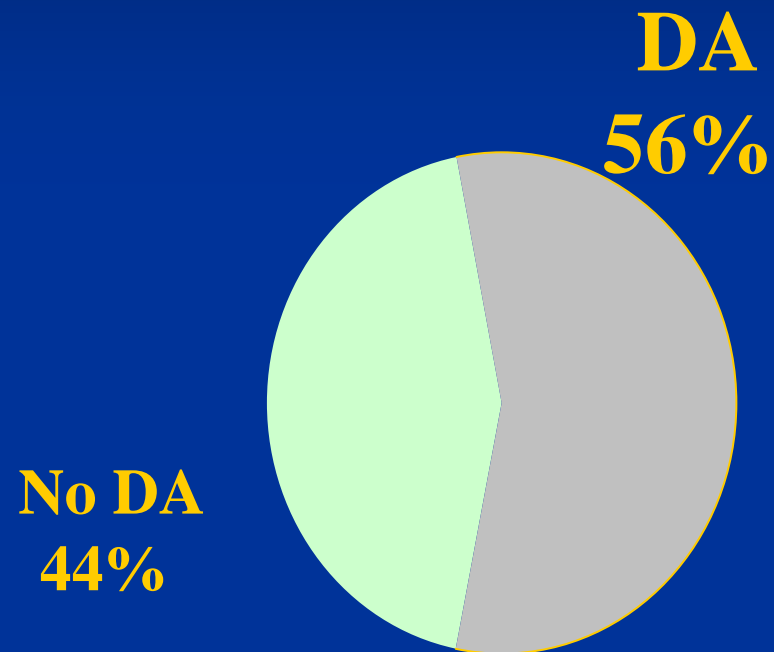


Health Supervision Topics That Parents Discuss, and Don't Discuss, But Would Find Helpful

■ Discussed ■ Not discussed ■ Not discussed, would have been helpful



Recall of Developmental Assessment Ever Being Done (Children 4-35 Months)



Factors Associated with provision of Developmental Services

Physician/staff capacity

- Lack of non-physician to do DA
- Lack of training
- Unfamiliarity with DA instruments

Office resources

- Time limitations
- Inadequate reimbursement
- Inability to bill and be reimbursed separately
- Unfamiliarity with CPT codes for DA

Community resources

- Lack of developmental diagnostic/treatment services
- Lack of programs to refer to



Targeted Initiatives: Improving Pediatric Developmental Services to Optimize the Medical Home

Innovations to Improve Delivery of Developmental Services and to Create Medical Homes

- Practice redesign - Healthy Steps
- Improve Connectivity - Child Serve
- Improve Accountability - CAHMI PHD
- Improve Quality – NICHQ, CHCQ
- Improve Systems- Orange County



HS Specialist & 7 Services

Enhanced WC Care

Home Visits

Telephone Line

Child Development &
Family Check-Ups

Written Materials

Parent Groups

Linkages to Resources



**2 HS Specialists/site
(1 per 100 families)**

A Physician-Developmental Specialist Partnership



Center for Healthier Children,
Families & Communities

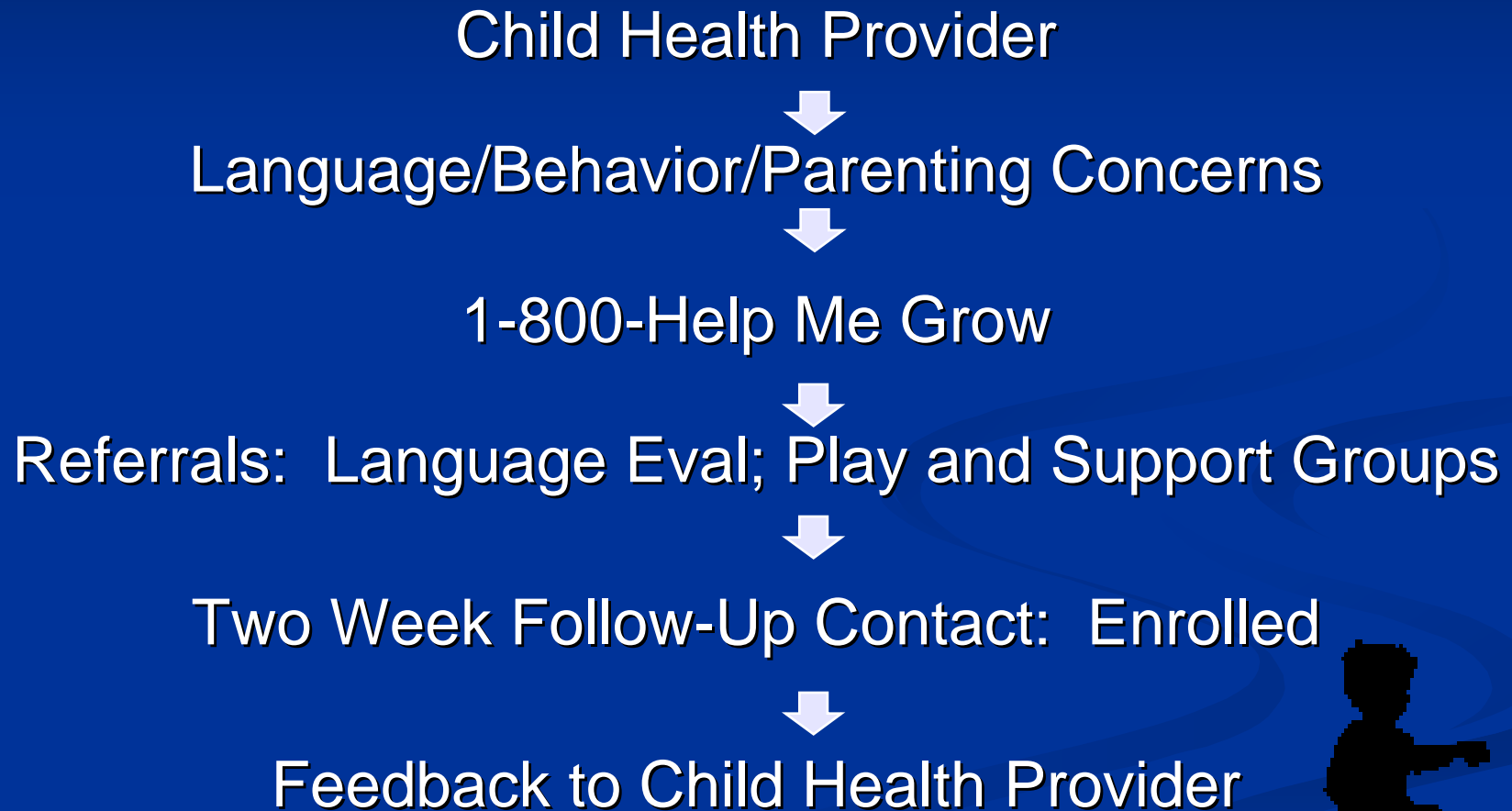
UCLA

Innovations to Improve Delivery of Developmental Services and to Create Medical Homes

- Practice redesign - Healthy Steps
- Improve Connectivity – Help Me Grow
- Improve Accountability - CAHMI PHD
- Improve Quality – NICHQ, CHCQ
- Improve Systems- Orange County, Ca



Help Me Grow- The Process



Innovations to Improve Delivery of Developmental Services and to Create Medical Homes

- Practice redesign - Healthy Steps
- Improve Connectivity - Child Serve
- Improve Accountability - CAHMI PHD
- Improve Quality – NICHQ & CHCQ
- Improve Systems- Orange County, Ca



Improving Accountability: Developmental Care for Young Children: CAHMI PHD

Seven Core Measures in the PHDS

- Anticipatory Guidance (Bright Futures and AAP Criteria)
- Getting Health Information
- Follow-Up for Children At Risk for Developmental/ Behavioral Delays
- Assessment of Smoking, Alcohol or Other Substance Abuse
- Assessment of Well-Being and Safety in the Family
- Family Centered Care
- Helpfulness and Effect of Care Provided



Performance in 12 Managed Care Organizations WA State, CA and Ohio

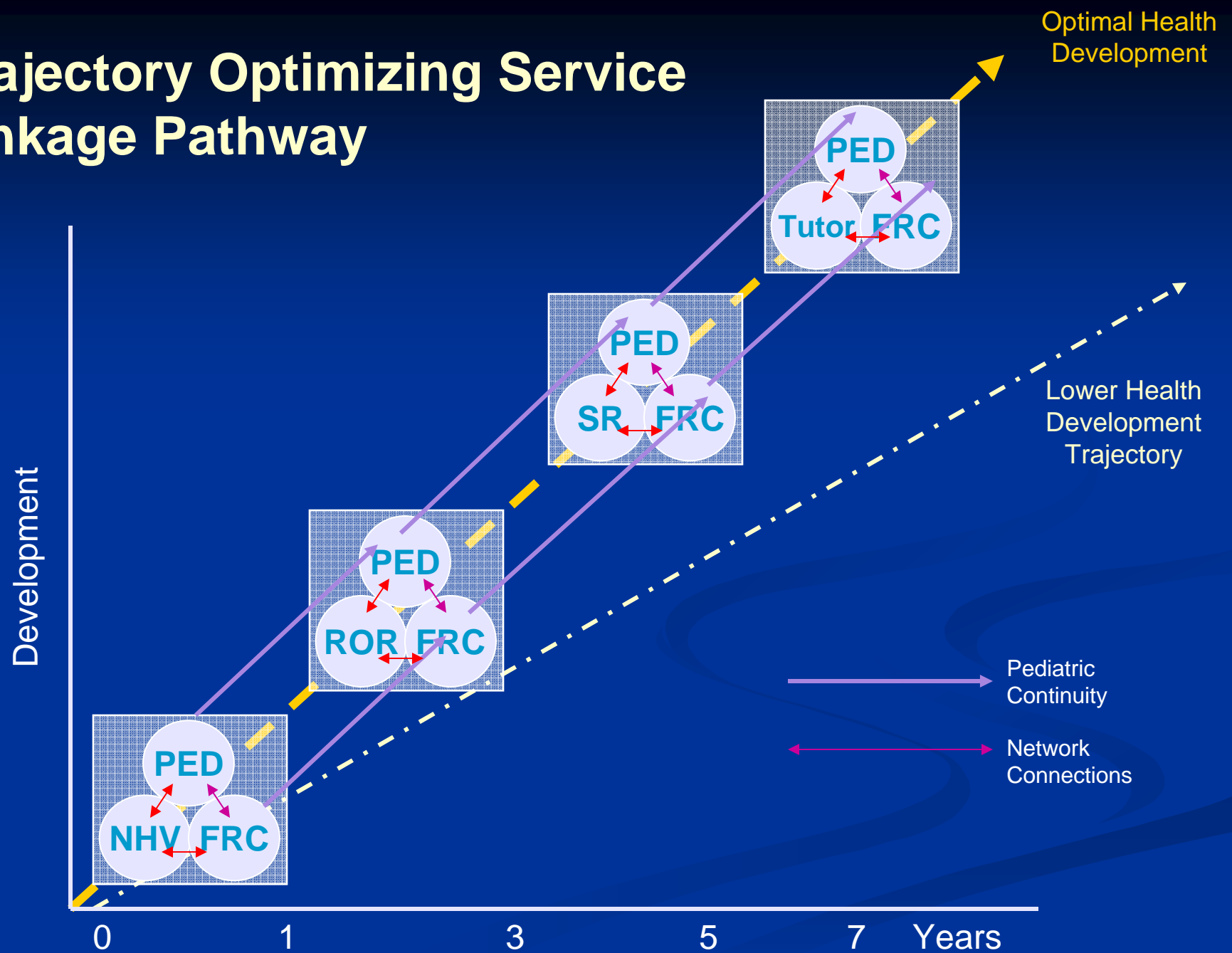
	<u>Range</u>
Anticipatory Guidance	60.5-76.9
Health Information	60.9-83.6
Follow-Up for Children at Risk	35.5-65.7
Assessment of Well-Being/Safety	15.2-34.6
Assessment of Smoking, Drugs	43.1-65.9
Family Centered Care	59.5-74.5



Innovations to Improve Delivery of Developmental Services and to Create Medical Homes

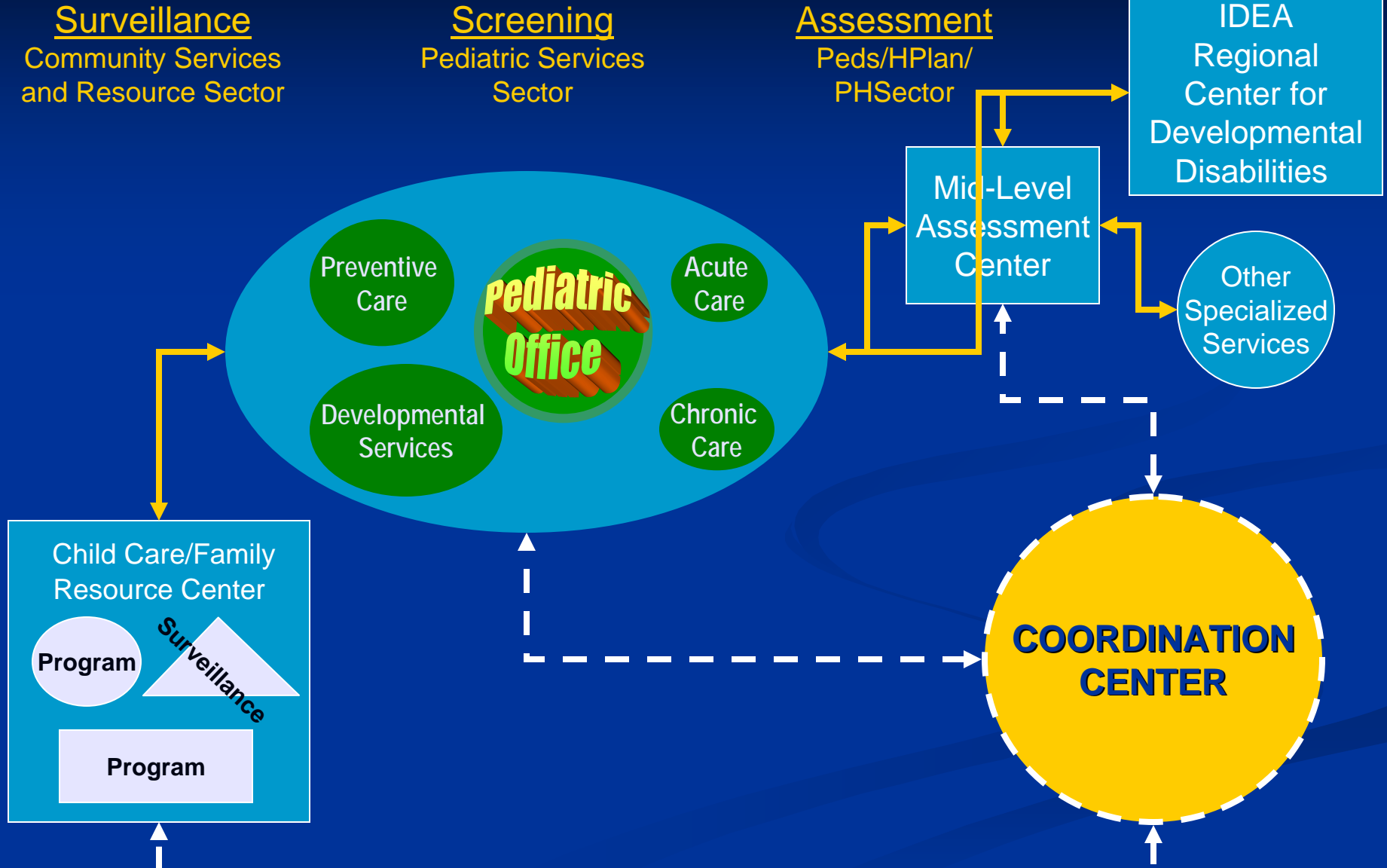
- Practice redesign - Healthy Steps
- Improve Connectivity – Help Me Grow
- Create Pathways- Denver System
- Improve Accountability - CAHMI PHD
- Improve Quality – NICHQ, CHCQ
- Improve Systems- Orange County

Trajectory Optimizing Service Linkage Pathway



DS Community Services Pathway

Evaluation
(IDEA Sector)



Re-engineering Strategies for Developmental Service System Change

- Place-based Strategy
- Sector-based Strategy
- Innovation Strategy
- Finance Strategy



ICECS: What we have learned

- All 4 countries have embarked on system building efforts for young children
- Initial Strategies (1.0) have given way to
 - From Adding Services to fill in gaps
 - UPK, Child care initiatives
 - Mother infant services
 - To Launching Programs & Initiatives (1.0)
 - Sure Start, Best Start, First Duty, First 5
 - Improve the Quality of Services, Programs, and Initiatives

ICECS: What we have learned

- All 4 countries have embarked on system building efforts for young children
- System Building Strategies have to contend with
 - Legacy and power of old paradigm
 - moving from *Five to zero*
 - To - *Zero to Five*
 - Children in our national policy marketplace
 - To Leverage \$\$, interest, and partnership beyond Human Development Sector
 - Business Sector –Economic Development & ECD
 - Community Sector- ECD & Community Develop.



ICECS: What we have learned

■ Advance Strategies (2.0)

- Connecting services and programs into functioning community based systems
 - Every Child Matters (UK)- Major Policy Strategy building upon Sure Start, with a specific strategy for joining up the elements
 - SECCS (US) – State level nudge toward joining up and creating a system
 - Healthy Child Manitoba-Provincial wide approach
 - Platforms, Best Start (Aus)- New Operating Systems on the ground
- Incubation of new approaches (proof of concept & skunk works)
- Build, renew local environments to make them more conducive to early child development
 - NSBN



ICECS: What we have learned

■ Advance Strategies (2.0)

■ Governance

■ Early/childhood cabinets

- Model legislation

■ Facts on the ground

- How to present, and spread?

■ Strategic Plans, Consolidations

- Is there a model strategic plan?

■ Finance- amount of money, undercutting our selves

- Moving from Heckman's analysis to a business plan that makes sense? Model business plan?



ICECS: What we have learned

- Advance Strategies (2.0)
 - Measuring, Monitoring, Reporting
 - Common outcomes framework for ECD
 - EDI domains
 - Common outcomes framework for ECD systems performance
 - PHD-ECD
 - Common reporting framework
 - EDI mapping
 - Other



Transformation Strategies

- Logic Model
- Organization of ECD Producing Sectors
- Organization and Delivery of Services
- Education and Workforce
- Market Structure
- Funding
- Planning
- Regulation and Governance
- Performance Monitoring

ECD System Development

- Transformation
- Change the operating system, **change the culture**
 - New Logic model/ paradigm
 - Not just new application program
- Augment Capacity to optimize ECD outcomes
 - Knowledge, skills, tools, relationships
- Augment Capacity to optimize the ECD system
 - System Change frameworks, system change tools, strategies
 - Focus on building the system of the future not just patching up the problems of the past



ECD System Transformation Framework

Components	What System Do We Have Now?	What System Do We Want to Have?	What Needs to Be Done to Effect Those System Changes? What can we do together?
Logic Model	5 to zero	Zero to 5	
Organization of ECD Producing Sectors			
Organization & Delivery of Individual Services	Fragmented	One stop -network	
Education & Workforce Development			
Market Structure			
Funding	Silos,	Consolidation, augmentation	
Planning			
Regulation & Governance			
Performance Monitoring			



Improving Early Childhood Health Care & Medical Home Development

- Vision for what the early childhood health system will look like
- Communication Strategy re:
 - Development Health and School Readiness
 - Medical Home
 - Developmental Services
 - Re-engineering current systems
 - Connecting medical home and child care
 - Improving capacity of medical home to provide developmental services



Improving Early Childhood Health Care & Medical Home Development

- Consider State Wide Agenda Setting Strategy to:
 - Bring the various players in the health sector together
 - Create a common vision about the importance of improving developmental services, service delivery pathways, and systems change strategies
 - Consider a health care sector strategy focused on improving the development and function of medical homes



Improving Early Childhood Health Care & Medical Home Development

- Develop policy strategies that overcome barriers for fully functional medical homes
 - Reimbursement and contracting changes to create incentives for the provision of developmental services
 - Coding and reimbursement strategies
 - Medicaid Contract language
 - Quality measurement and monitoring strategies focused on provision of developmental services



The New ECD: the role of the Pediatrician

- Transactionalist
- Curve shifter
- Pathway builders
- Innovators and system changers
- Sector Bridger's
- Conveners, collaborators, learners
- Community connector
- Leverage financiers



no. 1

NATIONAL CENTER FOR INFANT AND EARLY CHILDHOOD HEALTH POLICY

JANUARY 2004

BUILDING BRIDGES: A Comprehensive System for Healthy Development and School Readiness

NEAL HALFON, MD, MPH
KIMBERLY UYEDA, MD, MPH
MOIRA INKELAS, PhD
THOMAS RICE, MA

BUILDING STATE EARLY CHILDHOOD
COMPREHENSIVE SYSTEMS SERIES, No. 1



UCLA CENTER
FOR HEALTHIER CHILDREN,
FAMILIES AND COMMUNITIES



ASSOCIATION OF MATERNAL
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National Center for Infancy and Early
Childhood Health Policy**

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Bridging Sectors to Create Integrated Pathways to Optimize the Production of Health

